INFLUENCE OF ORGANISATIONAL CULTURE ON THE IMPLEMENTATION OF HEALTH SECTOR REFORMS IN LOW AND MIDDLE INCOME COUNTRIES: A QUALITATIVE INTERPRETIVE REVIEW

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THESIS ABSTRACT

The qualitative interpretive synthesis carried out for this MPH mini-dissertation reviews existing empirical literature for evidence on organisational culture and its influence on the implementation of health sector reforms in Low and Middle Income Countries. This mini-dissertation is organised into three parts:

PART A: This is the review protocol which outlines the introduction, the background and the review questions for both the scoping review (which forms section B) and the qualitative interpretive synthesis (which forms section C) along with their justifications. It also outlines the methodology for both the scoping review and the qualitative interpretive review. The literature search was carried out in eight electronic databases using key search terms developed from the review questions. Inclusion and exclusion criteria were developed to determine the articles for inclusion into the review. All the search terms, data extraction templates and summary tables used in both reviews are provided in this section.

PART B: This is the literature review section which was carried out to map the scope of literature on organisational culture within the health sector in Low and Middle Income Countries in order to support the more detailed analysis in Section C. It begins with a general description of organisational culture and its conceptual frameworks, as well as a description of the tools used in assessing organisational culture that were identified from a broader reading of literature on organisational culture. The reviewer then describes the literature search strategy of the scoping review and maps the retrieved articles based on themes on organisational culture in the health sector. Lastly, the reviewer classifies the different dimensions of organisational culture identified in the reviewed articles based on the Competing Values Framework in order to facilitate comparison of organisational culture across the studies.

PART C: This is the full qualitative interpretive synthesis presented as a journal ready manuscript. This review begins with an introduction on health sector reforms and organisational culture. This is followed by a description of the methods used to identify the literature, an outline and synthesis of the findings, discussion section and lastly, the conclusion. The findings of this interpretive synthesis indicate the potential influence of various dimensions of organisational culture such as power distance, uncertainty avoidance, in-group and institutional collectivism, mediated through organisational practices, over the implementation of the health sector reforms. It also highlights the dearth of empirical literature around organisational culture and therefore, its results can only be tentative. There is need for health policy makers and health system researchers in Low and Middle Income Countries to conduct further analysis of organisational culture and change within the health system.

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LIST OF ABBREVIATIONS

CSO	Civil Society Organisation
CSOs	Civil Society Organisations
HICs	High Income Countries
HPSR	Health Policy and Systems Research
LMICs	Low and Middle Income Countries

PART A: PROTOCOL

Introduction

A health system is defined by the World Health Organization (2007, p.2) as 'all organisations, people and actions whose primary intent is to promote, restore or maintain health.' The main goals of the health system include: improving health and equity, promoting social and financial risk protection, promoting efficient use of accessible resources and meeting the health needs of the people (World Health Organization 2000). The World Health Organization (2007) conceptualises the health systems in terms of six building blocks which constitute the health system hardware or the tangible aspects of the health system (Sheikh et al. 2011) such as: health workforce of different cadres- doctors, nurses, community health workers and other allied health care professionals; service delivery and infrastructure- publicly and privately owned health care facilities along with their organograms, non-governmental and faith-based organisations; medical products and technology-vaccines, drugs, laboratory services, radiography machines; financing- national health budgets, user fees or out of pocket payments, hospital budgets, donations and grants; leadership and governance- Minister of health, health facility managers, administrators, health facility management committees; and information systems- health management information systems and patient records. The health system also consists of software or intangible elements such as ideas, values, interests, power, norms and relationships. These software elements are passed on and enforced in the various operations that take place within the health system (Freedman 2005). Health systems are, therefore, socially constructed through interactions among the actors and through the meanings that the actors derive therein (Gilson et al. 2011). Importantly, the interaction of the hardware and software elements of the health system is essential for health system functioning and performance (Sheikh et al. 2011).

Health systems globally experienced an upsurge of reforms during the 20th century that were introduced by governments and international bodies in order to promote health system efficiency, responsiveness as well as fairness for health system users (World Health Organization 2000). Notably, the World Bank in collaboration with the World Health organisation and other multinationals proposed various health sector reforms in the World Development Report of 1993 with the aim was to invest in health (World Bank 1993) and to inform new strategies to improve services within the health sector in Low and Middle Income Countries (LMICs) (Berman, Bossert 2000). These health sector reforms were defined as "fundamental, purposeful and sustained changes" (Berman 1995, p.13) that would help define and set priorities, refine policies and transform the organisations through which the policies would be implemented (Cassels 1995). The health sector reforms outlined in the World Development Report of 1993 report comprised of:

diversification of health system financing through user fees and social or community health insurance, organisational restructuring through decentralization of the health system and through the introduction of performance based payment mechanisms, establishment of public-private partnerships, contracting out of health services and comprehensive primary health care (Cassels 1995, Gilson, Mills 1995, Bennett, Mills & Russell 2001, World Bank 1993).

The Word Development Report of 1993 has, however, been criticised for only providing prescriptions for governments on what to do to improve efficiency with the actions and changes associated with these reforms expected to occur somehow automatically through rational analysis. In this manner, the report failed to consider the problems that the reforms would face during implementation (Reich 1995). In addition, the reforms outlined in the report have been criticised for being largely structural or technical in their approach, in that the reforms mainly addressed the hardware elements of the health system. The report therefore paid little attention to the influence of the software elements of the health system on the implementation of the reforms. This criticism came from scholars not only in LMICs (Blaauw et al. 2003) but also in the developed countries (Davies 2002, Scott et al. 2003a). One of the software elements that has been overlooked by the reforms is organisational culture (Blaauw et al. 2003) which is considered to have the potential to influence how reforms are put into place (Davies 2002).

Background

Health Policy and Systems Research (HPSR) addresses the interrelationship between policy and systems while at the same time bringing to the fore the social and political dimensions of the health system (Gilson et al. 2011, Sheikh et al. 2011). As a research field, it aims to investigate and bring about knowledge that can help societies to better organise themselves and bring about improvements within the health system (Gilson 2011). HPSR addresses policy formulation and implementation issues from the international level down to the national and local levels (Sheikh et al. 2011, Gilson 2011). However, HPSR has tended to focus more on the hardware aspects of the health system than on the software elements. This has been attributed to the perception of the health system as a vehicle (Sheikh et al. 2011) or as a machine (Blaauw et al. 2003). Consequently, the diagnosis of and solutions to problems within the health system have largely focused on the structural or technical aspects (Blaauw et al. 2003, Sheikh et al. 2011) more than on the social or political aspects of the health systems.

Review questions

This protocol outlines two review questions: the scoping review question and the synthesis review question- that will inform the literature review section (Part B) and the journal article manuscript (Part C) of the dissertation respectively.

1) What is the scope of literature on organisational culture within the health sector in LMICs? (Scoping review question)

2) How does organisational culture influence the implementation of health sector reforms in LMICs? (Evidence drawn from synthesis of current experience)

Objectives of the scoping review question

1) To identify, map and summarise the fields or areas of study on organisational culture within the health sector in LMICs.

Objectives of the interpretive review question

1) To identify, interpret and synthesise existing literature for evidence on organisational culture and how it influences implementation of health sector reforms.
2) To consider the policy as well as research implications of this synthesis.

Justification for the scoping review question

Research on organisational culture enjoys limited prominence in the health sector when compared to other fields such as organisational and management fields (Parmelli et al. 2011). The scoping review will therefore allow us to map existing literature on organisational culture in the health sector within LMICs in order to generate insights that support the more detailed analysis of the interpretive synthesis in Part C of the dissertation in terms of how to think about and interpret issues related to organisational culture from the papers selected for review.

Justification for the interpretive review question

Following the World Development Report of 1993, health sector reforms were introduced in the health systems with the aims of improving efficiency, effectiveness and performance. These reforms were necessary for the health sectors, particularly in the developing countries, because they were characterised by inefficient use and inequitable distribution of resources, poor access and poor performance (Cassels 1995, Grindle 1997, Berman, Bossert 2000). The benefits of the reforms, therefore, lay in their perceived

capacity to bring about positive and lasting impacts in the health sectors through improvements in efficiency, effectiveness and responsiveness (Berman 1995). According to Freedman (2005) and Reich (1995), the authors of the health sector reforms considered health systems as mechanical structures where changes in one aspect were expected to lead to standardised, desirable and measurable increases in efficiency and equity. These changes were therefore assumed to occur somehow automatically but with little mention of the challenges that the reforms would face during implementation (Reich 1995). Despite the magnitude of the investments made in restructuring the health system hardware following the introduction of health sector reforms in LMICs as proposed in the World Development Report of 1993, health systems showed limited improvement (Blaauw et al. 2003). According to Blaauw et al. (2003), the striking imbalance between the investments made on the hardware elements compared to the software elements offered a plausible explanation for the limited improvements associated with the reforms. A similar explanation was offered by Davies (2002) who argued that the health sector reforms within the National Health System in the United Kingdom were largely focused on addressing the structural aspects as opposed to the software aspects within organisations. These software elements are thought to be more likely to impede change (Blaauw et al. 2003, Scott et al. 2003c). The software element that has been identified as neglected is organisational culture (Davies 2002, Blaauw et al. 2003).

What is organisational culture?

Organisational culture is a concept with roots in anthropology (Allaire, Firsirotu 1984, Smircich 1983, Hatch 1993). The concept of culture in organisations borrows its significance from the view of organisations as social systems characterised by social processes, norms, behaviours and structures (Allaire, Firsirotu 1984, Smircich 1983). Organisations are also considered as living and social organisms that are made up of groups of people (Schneider 2000). Despite its earlier emergence and long history, organisational culture lacks a definition that is universally accepted with different scholars speaking about it in different ways (Scott et al. 2003b, Schein 2006, Davies, Nutley & Mannion 2000). Pettigrew (1979) defined culture as a system of meanings that are widely embraced by a group of people at a particular time while Hofstede, Hofstede & Minkov (1997) viewed culture as a collective, learned and shared experience by members within a group. On the other hand, Davies, Nutley & Mannion (2000) defined culture as how things are understood, valued and carried out while Schein (1984, p.3) defined culture "as a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those

problems." Nevertheless, recursive aspects across the numerous definitions draw attention to the underlying similarities which indicate that: organisational culture is a shared phenomenon among members of a group comprising of social constructs such as beliefs, meanings, values, sense-making as well as behaviour and norms (Davies, Nutley & Mannion 2000, Schein 2006, Tharp 2009, Konteh, Mannion & Davies 2008, Parmelli et al. 2011, Grindle 1997, Hofstede, Hofstede & Minkov 1997); and organisational culture is a learned phenomenon (Hofstede, Hofstede & Minkov 1997, Schein 2006, Schein 1984). The choice of definition of organisational culture has significant implications on how one studies and examines it (Sun 2009).

Organisational culture provides a lens through which the internal dimensions (Gilson, Erasmus 2004) and activities of the organisation can be understood by both the members of the organisation, as well as by external stakeholders (Konteh, Mannion & Davies 2008). By illuminating an organisation's life, organisational culture generates an understanding of the processes that occur within it when radical changes are made (Allaire, Firsirotu 1984). It defines the actions of the members of the organisation as well as what they value and regard as important or legitimate. How members think, feel and act constitute what Hofstede, Hofstede & Minkov (1997) refer to as the software elements of the human mind or culture. The dynamics of the relationships and interactions among these members also constitute the culture of the organisation (Schneider 2000, Franco, Bennett & Kanfer 2002). Organisational culture matters because it affects aspects of the organisation such as decision making and change (Tharp 2009), organisational effectiveness (Schneider 2000) and organisational functioning (Schein 1996, Gilson, Erasmus 2004). Given these reasons, organisational culture draws its importance as an approach to carrying out organisational analysis by generating information on organisational behaviour and by highlighting the social dynamics of the organisation. It also informs organisational research (Tharp 2009, Mannion, Konteh & Davies 2009) and consultancy (Mannion, Konteh & Davies 2009, Parmelli et al. 2011).

Research on organisational culture largely exists within organisational and management literature compared to the biomedical field (Parmelli et al. 2011). Studies carried out in the organisational and management fields have shown that organisational culture has significant impact on performance and effectiveness of organisations (Cameron, Quinn 2005, Scahill 2012, Schein 2006) as well as in initiating change (Pascale, Millemann & Gioja 1997, Cameron, Quinn 2005). In the health sector, a systematic review by Parmelli et al. (2011) on 'the effectiveness of strategies to change organisational culture to improve healthcare performance' (Parmelli et al. 2011, p.1) found supportive evidence of the impact of culture

change interventions such as education sessions, audits and feedbacks on healthcare performance indicators such as infection control, patient outcomes as well as staff turnover rates.

From a management viewpoint, understanding organisational culture within the public sector is central to the achievement of reform changes as well as the desired objectives (Bradley, Parker 2007) while from a policy viewpoint, understanding the existing organisational culture provides a basis for evaluating and describing the appropriateness and extent of adoption of the reform processes (Bradley, Parker 2007). However, before its recognition as an important factor in organisational performance and effectiveness, organisational culture was largely overlooked by both managers and researchers. This is because organisational culture comprises of the taken for granted assumptions and values within an organisation which are often undetectable and people only become aware of their culture during a change process (Cameron, Quinn 2005) when culture either guides or restricts their behaviour (Schein 2006).

Organisational culture and health sector reforms

In the early 2000s, discourse on organisational culture grew apace alongside structural reforms in the health sector particularly in the developed countries such as the United Kingdom and United States of America (Scott et al. 2003b, Scott et al. 2003c, Davies 2002, Davies, Nutley & Mannion 2000, Konteh, Mannion & Davies 2008, Department of Health (DoH) 2001). During this time, several scholars proposed the potential existence of an important relationship between health sector reforms and aspects related to organisational culture. According to Franco, Bennett & Kanfer (2002) and Berman (1995), the thrust behind performance based financing and other health sector reforms proposed in the 1993 World Development Report respectively, was rarely confined to structural changes due to the associated wide ranging impacts on the organisational values, goals and services. Freedman (2005) argued that both health systems and health system reforms possessed inherent values and norms and it was therefore important that the State was aware of the values being passed on in the reforms. More recently, Sheikh, Ranson & Gilson (2014) highlight that values within the health system can influence change in the health system while at the same time, health reforms can influence the values that are already in existence within the health system. It is therefore important that policy makers and managers are aware of the existing values within an organisation as well as the implicit and explicit values associated with the health sector reforms as the degree of fit between the two will determine either the success or failure of the reforms or strategies (Schneider 2000, Franco, Bennett & Kanfer 2002). As argued by Davies (2002), while the health sector or structural reforms address the formal contexts in which people work, organisational culture addresses the informal contexts that shape the way the reforms become implemented.

Yet despite the aforementioned potential influence of organisational culture on the implementation of health sector reforms, ongoing debates about health sector development and health system research in LMICs are still largely around the hardware elements such as infrastructure and technology (Blaauw et al. 2003). As organisational culture continues to enjoy little prominence in LMICs health system debates (Gilson, Erasmus 2004), the role and management of organisational culture continues to remain underspecified in the health sector (Parmelli et al. 2011). As argued earlier by Reich (1995), the limited analysis of the political and organisational factors that influence health sector reforms has undermined the development of strategies that would otherwise have enhanced the feasibility of the health sector reforms. Similarly, implementation research – which aims to generate an understanding on how and what happens when policies are put into practice or implemented- enjoys limited prominence and funding in LMICs compared to other fields of research (Sanders, Haines 2006). As a result, the limited analysis of the influence of organisational culture in the health sector has limited the understanding of how organisations work (Franco, Bennett & Kanfer 2002). According to Gilson et al. (2011), the understanding of organisations and how they function is considered critical in policy implementation, an important yet glaring gap in health policy and health systems research.

In view of the potential importance of organisational culture as an influence on the implementation of health sector reforms, this interpretive synthesis becomes important, timely and relevant within the current discourse of health system research. This review aims to inform health policy and systems research by reviewing existing literature on the implementation of health sector reforms through the lens of organisational culture. We will explore what features of organisational culture are identified in the selected papers and how they influence the implementation of the reforms. We will also identify issues of importance for consideration by both health policy makers and managers and health policy and systems researchers working in LMICs. Lastly, we hope that this review will identify knowledge gaps of relevance to health systems research and that it will be useful to the policy makers responsible for the formulation and management of policies that bring about health system improvement and development.

This interpretive review will therefore look at how organisational culture influences implementation of the health sector reforms that were proposed by the World Bank in the World Development Report of 1993 in low and middle income countries.

Methodology

Approach to the scoping review

Scoping reviews or studies aim to identify quickly the main concepts in the area of interest as well as their sources (Mays, Roberts & Popay 2001, Arksey, O'Malley 2005). The scoping review for the literature review section will be guided by the five stages of the framework described by Arksey and O'Malley (2005).

Stage 1: identification of the research question

The question that will guide the scoping review is as stated previously: *What is the scope of literature on organisational culture within the health sector in LMICs?*

Stage 2: identification of relevant literature

This will be done by searching electronic data bases using key search terms (Figure 1) derived from the research question as well as from consultations and inputs from Professor Lucy Gilson of the University of Cape Town -an experienced health policy and systems researcher.

Organi?ational Culture OR institutional culture
AND
Health sector or health system
AND
Developing Countr* OR Africa OR Asia OR Latin America OR Caribbean OR Pacific OR Middle East OR East Europe(Gilson, Raphaely 2008) OR transitional countr* OR low income countr* OR middle income countr* OR LMIC OR LMICs

Figure 1: Key search terms for the scoping review

The literature search will be carried out in the following databases due to their relevance to the scoping review question as well as their accessibility to the primary reviewer: PubMed; Africa-Wide Information, Cumulative Index of Nursing and Allied Health Literature (CINAHL), Econlit, PsycINFO, SocINDEX with full text via EBSCOHost; Emerald and Scopus (Table 1). The search in PubMed will be done using country specific names according to the 2012 filters for LMICs developed by the Norwegian satellite of the Cochrane effective practice and organisation of care group. These filters are based on the 2009 World Bank classification of countries (Cochrane Effective Practice and Organisation of Care (EPOC) Review Group 2015). These LMICs filters are presented in Appendix 1. The literature search will be done under

the skilful assistance and guidance of a Health Sciences Librarian from the University of Cape Town in order to improve the effectiveness of the search strategy (Higgins, Green 2008).

Table 1: Focus of the different databases

DATABASE	FOCUS
PubMed	Literature on biomedicine and life science from all regions of the world
Africa-Wide Information	Multidisciplinary collection of literature on all aspects including health with a focus in Africa and other developing countries
Cumulative Index of Nursing and Allied Health Literature (CINAHL)	Journals and other publications with a focus in biomedicine, complementary medicine, consumer health and health sciences among others
Econlit	Literature on all facets of economics and government regulations
PsycINFO	Literature on mental health and behavioural science
SocINDEX with full text	Literature on sociology and its sub disciplines as well as other allied studies including cultural or anthropological research
EMERALD	Literature in multiple and diverse fields such as marketing, education, library services, engineering, management and business
SCOPUS	Literature across different fields such as social sciences, engineering, arts and humanities and health and medicine

SOURCE: (UCT LIBRARIES 2015)

Stage 3: selection of studies

Selection of studies for the scoping review will be guided by inclusion and exclusion criteria in order to limit the studies to those that address the scoping review question. The scoping review will only include articles that are published in English, articles that are relevant to the health sector, articles that address and define the use of the term organisational culture and articles with a focus in LMICs. The primary reviewer will exclude articles that are not related to the health sector, articles that do not have full access through the University of Cape Town Library, opinion pieces and book chapters and articles from HICs. The primary reviewer will also exclude articles that do not define the use of the term organisational culture due to difficulties of inferring the meaning of organisational culture as used in the articles. There will be no restrictions on the study design. All articles that meet the eligibility criteria after full text reading will be included in the scoping review.

Stage 4: charting of the data

In this stage, the primary reviewer will identify and record the main issues of relevance to the research question within the retrieved literature. Decisions on the kind of information to be recorded were arrived at following consultations with Professor Lucy Gilson. The retrieved information will be recorded as shown in Table 2 to facilitate comparison in the next stage.

Table 2: Organisational culture in the health sector

Title of article, Name of author, publication year	**Type of Journal**	**Geographical or Country location and study setting.**	**Health sector or health system issue around which organisational culture is discussed**

Stage 5: Summarizing and reporting of the study results

The primary reviewer will end the scoping review by describing the retrieved literature and by giving an analysis of the distribution of the articles according to the type of journal, geographical regions and categories of health sector or health system issues around which organisational culture is discussed. This will help to highlight the existing areas of research on organisational culture within the health sector. It will also inform the interpretive review in terms of how to think about or conceptualise and interpret organisational culture.

Approach to the interpretive review: qualitative interpretive synthesis

This review will be carried out using a qualitative interpretive synthesis approach. The field of qualitative research synthesis is still in its nascent stages (Sandelowski, Docherty & Emden 1997, Gilson 2014, Mays, Pope & Popay 2005) but gaining prominence in health research and in policy and decision making (Gilson 2014). Qualitative synthesis follows a structured process that draws upon the tenets of a systematic review (Bearman, Dawson 2013). Systematic reviews follow structured, explicit and systematic processes to identify and synthesise literature in order to ensure transparency, exhaustive literature searches and minimal bias (Cook, Mulrow & Haynes 1997, Higgins, Green 2008, Moher et al. 2009). This makes systematic reviews essential in evidence based practice, decision making and policy development (Dixon-Woods et al. 2006, Wallace et al. 2006, Chalmers 2003, Higgins, Green 2008, Gough, Oliver & Thomas 2012).

There are two forms of qualitative synthesis: the interpretive and integrative forms. Integrative synthesis summarises data from primary studies using concepts that have been determined a priori. On the other hand, interpretive synthesis uses data from primary studies to develop concepts or to develop theories from the concepts identified in the primary studies. Therefore, interpretive synthesis avoids specifying the concepts a priori (Dixon-Woods et al. 2005, Dixon-Woods et al. 2006). However, set against systematic reviews which aim to ensure that the process (methodology) and the outcomes are transparent and reproducible (Bearman, Dawson 2013, Dixon-Woods et al. 2006), the interpretations obtained from qualitative synthesis may raise questions of bias (Gilson 2014). According to Bearman and Dawson (2013), the interpretations are inherently subjective because they are informed by the epistemological background of the reviewer. Nevertheless, the process that will be used in the synthesis will be clearly outlined in the following sections in order to maintain rigour which is integral to and consistent with systematic reviews. In addition, a clear description of this process will allow the readers to critically assess the literature drawing upon their own experience (Bearman, Dawson 2013).

For this qualitative synthesis, we will use the interpretive synthesis approach because the review question seeks to generate new concepts and understanding of organisational culture from the retrieved literature. In addition, interpretive synthesis can be used to pool information from all primary studies whether qualitative, quantitative or mixed methods (Bearman, Dawson 2013, Dixon-Woods et al. 2005). Despite the ongoing debates on the appropriateness of using qualitative research findings to form generalizations in research (Wallace et al. 2006, Thomas, Harden 2008, Thorne et al. 2004), it is increasingly being recognised that qualitative research findings are important in addressing practice as well as policy problems (Dixon-Woods et al. 2005, Mays, Pope & Popay 2005, Campbell et al. 2003). In addition, qualitative research methods are sensitive and flexible to the social context and they show how the social world is constructed, interpreted and understood (Mason 2002) which is particularly relevant to the focus of this review.

This interpretive synthesis and review process will be informed by following steps outlined by Gilson (2014) which are consistent with the steps undertaken in a systematic review (Gough, Oliver & Thomas 2012).

Literature search

We will conduct a structured systematic search for primary studies in the following electronic databases: PubMed; Africa-Wide Information, Cumulative Index of Nursing and Allied Health Literature (CINAHL), Econlit, PsycINFO, SocINDEX with full text via EBSCOHost; Emerald and Scopus. The inclusion of multiple

electronic databases forms part of the comprehensive search strategy that helps to identify all the potentially relevant literature that exist. This increases the confidence of the literature search as no single data base is comprehensive on its own (Wallace et al. 2006) and it also minimises selection bias (Higgins, Green 2008).

The literature search will be carried out in each of the aforementioned databases using key search terms (Figure 2). These key terms were built from: the main concepts in the review question (Akobeng 2005, Higgins, Green 2008), the literature identified during the initial scoping of literature and from consultations and inputs by Professor Lucy Gilson of the University of Cape Town who is an experienced health policy and health systems researcher. Developing the literature search strategy will involve an iterative process of trial and preliminary searches using different combinations of the search terms before finalizing the search strategy (Keele 2007). This will be done under the guidance of a skilled Health Science Librarian from the University of Cape Town. During this process careful attention will be paid to the spellings and synonyms of the key search terms so as to improve the effectiveness of the electronic data base search (Bown, Sutton 2010, Higgins, Green 2008). To initiate the search, the key words will be combined with the Boolean operators “AND” and “OR”. The Boolean “OR” will be used to build up the synonyms and other related terms of each key concept while the Boolean “AND” will be used to combine the set of terms developed for each key concept (Higgins, Green 2008). In this way, the Boolean operator “AND” only allows retrieval of the articles containing a combination of all key terms while the operator “OR” allows retrieval of articles containing either of the key terms (Akobeng 2005, Higgins, Green 2008).

Organi?ational Culture OR institutional culture

AND

health sector reform* OR Health Care Reform* OR Health Polic* OR "health system strengthening interventions" OR universal health coverage OR "user fee removal" OR “user fees” OR "pay for performance" OR “performance based financing” OR health sector strateg* OR "health system reform" OR "health reform" OR decentralization OR decentralisation OR politics OR contracting out OR outsourc* OR public private partnerships OR comprehensive primary health care

AND

Implement*

AND

Developing Countr* OR Africa OR Asia OR Latin America OR Caribbean OR Pacific OR Middle East OR East Europe(Gilson, Raphaely 2008) OR transitional countr* OR low income countr* OR middle income countr* OR LMIC OR LMICs

Figure 2: Key search terms for the synthesis review

The literature search will be conducted in PubMed and later tested and translated to the other databases according to the databases’ appropriate and controlled vocabulary or standardised terms of indexing (Higgins, Green 2008). In order to be as comprehensive as possible, the initial search in PubMed will be done using country specific names according to the 2012 LMICs developed by Norwegian satellite of the Cochrane effective practice and organisation of care group. These filters are based on the 2009 World Bank classification of countries (Cochrane Effective Practice and Organisation of Care (EPOC) Review Group 2015). The search strategies as well as the dates of these searches will be clearly noted and saved in the respective data bases and later exported to the reference data manager in order to facilitate accuracy as well as provide an audit trail that future researchers may use to replicate and/or update the review (Bown, Sutton 2010). The complete search strategy, copied and pasted in full as run in each of the above databases, along with the number of articles retrieved is presented in Appendix 2. Copying and pasting is done to minimise errors that may otherwise occur with typing (Higgins, Green 2008). All the potentially relevant literature will be downloaded to a reference data manager, RefWorks, for easier management of the literature and for the identification and removal of duplicates (Higgins, Green 2008).

Inclusion and exclusion criteria for the articles

The inclusion and exclusion criteria used in any review affects the literature base because a too strictly defined criteria will limit meaningful combinations that can be used in the search while non- specific

criteria will lead to retrieval of large, non-homogenous and unmanageable data sets (Bown, Sutton 2010). According to Higgins and Green (2008) decisions associated with the inclusion and exclusion criteria also influence the findings obtained in a systematic review hence the need for transparency. The eligibility criteria in essence therefore defines the boundaries of the study in terms of methodology, geographical area and time as discussed below. Failure to meet even a single criterion will lead to the exclusion of the article from the review (Higgins, Green 2008).

The process of inclusion and exclusion will start by checking the titles and abstracts of the retrieved literature against the eligibility criteria. The review will include:

i. Articles published in English.
ii. Articles with full access through the University of Cape Town Libraries.
iii. Articles whose titles and abstracts contain the key search terms and are relevant to the review question.
iv. Articles with an empirical focus irrespective of the study methods used whether qualitative, quantitative or mixed methods since interpretive synthesis can be carried out on all forms of evidence (Dixon-Woods et al. 2005).
v. Articles on studies carried out in LMICs.
vi. Articles published from the year 2000 (A period when organisational culture formed an important discourse alongside health sector reforms (Davies 2002, Davies, Nutley & Mannion 2000)).

The review will exclude:

i. Articles not published in the English language due to difficulties in translation as well as time constraints
ii. Articles without full access through the University of Cape Town library
iii. Articles that are published before the year 2000
iv. Articles with an empirical focus in High Income Countries (HICs)
v. Articles that are not related to health sector or relevant to the research question
vi. Articles that are not based on published empirical research

Articles whose titles and abstracts meet the eligibility criteria will be considered potentially relevant and their full texts will be retrieved for further reading. These full texts will then be checked for compliance with the inclusion and exclusion criteria. The articles identified for full text reading will be forwarded to Professor Lucy Gilson for an independent review as well as to ascertain the suitability of these studies to

the review. Higgins and Green (2008) emphasise that the final selection of the articles to be included in the review should be carried out by more than one reviewer or author. Disagreements on whether or not to include the full article in the review will be resolved via consultation (Higgins, Green 2008). The full texts that meet the inclusion and exclusion criteria will be included in the review. Lastly, hand searching will be done for all the reference lists of the included studies to check for any studies that may meet the eligibility criteria. Hand searching provides a useful adjunct to electronic data base search as it may identify additional and relevant literature (Dickersin, Scherer & Lefebvre 1994).

Appraisal of the articles

Appraisal or quality assessment of the articles entails checking a study's internal validity as well as checking the extent to which the study has tried to minimise bias in the methodology and analysis (Tranfield, Denyer & Smart 2003, Dixon-Woods et al. 2006). Quality appraisal or assessment is considered necessary for any review that is based on empirical studies because no research is infallible (Wallace et al. 2006). It increases the confidence of the reader in the conclusions derived from the review and it also enables the identification of gaps and weaknesses in the literature (Wallace et al. 2006). In addition, quality appraisal of studies prevents the generation of an unreliable synthesis (Thomas, Harden 2008) that may lead to wrong practices and policies with subsequent wastage of already limited resources (Akobeng 2005). However, how and whether quality appraisal of qualitative research should be carried out is still contentious (Dixon-Woods et al. 2006, Thomas, Harden 2008, Dixon-Woods et al. 2007). Appraisal of qualitative research is made even more difficult by the diversity of the qualitative designs (Dixon-Woods et al. 2006) and the diversity of the details provided by the authors on the methods used in the studies (Gilson 2014).

Critical appraisal of research evidence is a systematic process that examines or assesses the methodology, results or findings of a study for: credibility- whether the findings presented are a true representation of the views of the study subjects; transferability- whether the findings of the study can be applied to other settings; dependability- whether the authors have clearly portrayed and documented the research process; and confirmability- whether the study findings are actually based on the collected data (Hannes 2011). The Critical Appraisal Skills Programme (CASP) tool (Appendix 3) uses a check-list approach with ten screening questions to look at the appropriateness and justification of the choice of data collection and data analysis methods, credibility of study findings, reflexivity of the authors, ethical considerations and the relevance of the study findings (Critical Appraisal Skills Programme (CASP) 2013). It has been used widely for quality appraisal in various qualitative studies and synthesis (Dixon-Woods et al. 2007, Campbell

et al. 2003). However, not many studies score positively against each criteria and a decision has to be made on whether to include or exclude studies based on the outcome of the appraisal. There are three approaches to reporting and using the outcomes of the critical appraisal. In the first approach, only high quality articles are included in the review. These are studies that score highly using the tool. Therefore studies that rank low in quality due to poor methodology or poor reporting of results are all excluded. In the second approach, different weights are assigned the high quality studies. However, there are no fixed parameters to guide reviewers on how to weigh the studies. The reviewers therefore need to decide which methodological flaws are acceptable with regards to the aims of the review and the influence that the flaws may have on the findings of the review (Hannes 2011). In the last approach, all the studies that meet the inclusion criteria are included in the review because it is accepted that the value of each study may become apparent in the synthesis rather than at the point of appraisal (Hannes 2011). All three approaches are considered acceptable by the Cochrane Qualitative Research Methods Group (Hannes 2011). Anticipating dearth of literature, we may adopt the third approach and include all the literature that meet the inclusion criteria in order to avoid excluding studies that may score low during the appraisal yet produce new insights in the synthesis. However if a large number of article is retrieved then we will use the CASP tool to appraise the quality and include only high quality literature. This will be done in consultation with Professor Lucy Gilson.

Sampling of the articles

Sampling of the articles is largely influenced by the aim of the review. If the aim of the synthesis is integration, then the reviewers will include all available literature in order that the results or estimates are not affected. On the other hand, if the aim of the synthesis is interpretation, then sampling will be done until the point of theoretical saturation (Dixon-Woods et al. 2006).

The sampling strategy for this synthesis review will only be determined once we have identified the full set of papers that meet the inclusion and exclusion criteria. As stated above in the critical appraisal section, if the number of articles that meet the eligibility criteria is limited then all of these articles will be included in the interpretive review irrespective of their quality as the value of the article may become apparent in the synthesis. However, if the number of articles that meet the eligibility criteria is large, then only high quality articles will be included in the review. A summary of the articles included in the review will be presented in a table as seen in Appendix 4.

Extraction of data

The process of extracting data will be systematic in order to be transparent about the processes followed and to enable future reviews in the same subject area (Gilson 2014). Data will be extracted from all the sections of the retrieved literature taking into consideration that findings and other relevant data maybe reported in other sections besides the known findings sections due to different reporting styles dictated by different academic disciplines (Sandelowski, Barroso 2002). Following Gilson, Schneider & Orgill (2014), we will also extract authorial judgements as data or findings because authorial judgements may provide more insight into the data presented in the articles. The extraction and synthesis of data, findings and authorial judgements will be informed by the thematic analysis approach (Thomas, Harden 2008) which involves three steps: coding of the text 'line-by-line' followed by organisation of similar codes into groups thereby generating 'descriptive themes' and lastly, the inception of 'analytical themes'. Thematic analysis provides an appropriate method for synthesising data in this review because it involves interpretation of codes identified in the data to develop analytic themes or new constructs which is in keeping with the interpretive aspect of this synthesis (Thomas, Harden 2008).

Stage 1: The primary reviewer will begin by immersing herself in the data through reading and rereading of the text in the retrieved articles in order to inductively identify texts, quotes and authorial judgements that are relevant to the review question. The identified texts, quotes and authorial judgements will form the initial codes for the review. Further reading and rereading of new studies will enable the primary reviewer to check on the consistency of meaning between each of the texts and the derived codes, to build onto the already identified codes and to develop new codes if necessary. The line by line coding will also enable the translation of the concepts across the retrieved literature which is key in qualitative research synthesis (Thomas, Harden 2008). This data extraction will be guided by a data extraction template (see Appendix 5).

Stage 2: This stage will involve the development of descriptive themes which tend to remain close to the data or findings in the primary studies (Thomas, Harden 2008). Descriptive themes will be developed by merging all the free codes, followed by identification of differences and similarities between codes. The descriptive themes will capture the meaning underpinned in the groups of similar codes.

Stage 3: In this stage, the analysis will go beyond the data or findings in the primary studies by generating a synthesis product in the form of analytic themes that address the review question (Thomas, Harden 2008). To achieve this, the primary reviewer will generate analytic themes by reinterpreting the descriptive themes in order to generate an understanding of organisational culture and its influence on

reform implementation. This inherently subjective process makes the third stage controversial as it relies on the reviewers' judgement (Thomas, Harden 2008). The process of interpretation will be guided by the House et al. (2004) cultural dimensions. These dimensions have been piloted and tested across different organisations and societies in a multicountry study involving both developed and developing countries. This framework will therefore provide a valid lens to support the synthesis stage as it will enable the reinterpretation and understanding of the descriptive themes as dimensions of organisational culture.

Interpretation and synthesis

Synthesis of findings will be done by combining the analytic themes derived from the reviewed literature to generate better understanding of the concept of organisational culture and to generate new explanations and hypotheses or theories (Pope, Mays & Popay 2007, Mays, Pope & Popay 2005, Thomas, Harden 2008). Based on the proposition of analytic generalisation (Robson 2002), we hope that careful analysis and comparison of aspects of organisational cultures depicted by the implementation experience across the different health sector reforms will generate relevant insights on organisational culture and its influence on the implementation of health sector reforms that will inform policy and future research.

Ethical considerations

This review will use published and publicly available literature which do not require confidentiality considerations. Nevertheless, ethical approval for this review will be sought from the Human Research Ethics Committee, Faculty of Health Sciences University of Cape Town.

Limitations of the review

The exclusion of unpublished literature may impose a publication bias on the findings of the qualitative interpretive review. The exclusion of articles published in other languages besides English, in both the scoping and synthesis reviews, may lead to the exclusion of potentially relevant articles on organisational culture in the health sector and organisational culture and health sector reforms respectively. This limitation arises due to constraints of time and other resources that would otherwise be required for the translation of such articles.

Dissemination

Knowledge dissemination requires one to know what message is to be disseminated and who the message should be directed to due to its relevance (Reardon, Lavis & Gibson 2006). This review aims to generate knowledge on organisational culture and health sector reforms aimed for the following audiences: health policy and health system researchers, and policy makers within the health system in LMICs. The synthesis

process and the synthesis judgements and interpretations will be clearly outlined and disseminated in the form of a thesis and a journal-ready article intended for publication in the Health Policy and Planning journal. These documents will be packaged in a language that is simple, clear and easy to understand to enable conceptual enlightenment among the readers and, knowledge uptake and translation into policy by the policy makers.

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Timeline of the review

COMPONENT OF THE THESIS	ACTIVITY	DATES
PART A: PROTOCOL	FORMULATION OF SUBJECT AND REVISION	JULY- 30TH SEPTEMBER 2015
	DRAFT	3OTH SEPTEMBER 2015
	EDITS	1ST – 15TH OCTOBER
PART B: LITERATURE REVIEW	SCOPING REVIEW	SEPTEMBER- NOVEMBER 2015
	1ST DRAFT	30TH NOVEMBER 2015
	EDITS	DECEMBER 2015
PART C: JOURNAL ARTICLE	1st DRAFT	12TH FEBRUARY 2016
	EDITS	FEBRUARY 2016
	FINAL DRAFT	26TH FEBRUARY 2016
SUBMISSION	INTENTION TO SUBMIT	29TH JANUARY 2016
	SUBMISSION	15TH MARCH 2016

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Appendices

Appendix 1: LMICs filters

PubMed Filter 2

(Searches the following fields: title, abstract, other abstract, MeSH, other terms, but **NOT** place of publication)

#5 Search #1 or #2 or #3 or #4

#4 Search "developing country"[tw] OR "developing countries"[tw] OR "developing nation"[tw] OR "developing nations"[tw] OR "developing population"[tw] OR "developing populations"[tw] OR "developing world"[tw] OR "less developed country"[tw] OR "less developed countries"[tw] OR "less developed nation"[tw] OR "less developed nations"[tw] OR "less developed population"[tw] OR "less developed populations"[tw] OR "less developed world"[tw] OR "lesser developed country"[tw] OR "lesser developed countries"[tw] OR "lesser developed nation"[tw] OR "lesser developed nations"[tw] OR "lesser developed population"[tw] OR "lesser developed populations"[tw] OR "lesser developed world"[tw] OR "under developed country"[tw] OR "under developed countries"[tw] OR "under developed nation"[tw] OR "under developed nations"[tw] OR "under developed population"[tw] OR "under developed populations"[tw] OR "under developed world"[tw] OR "underdeveloped country"[tw] OR "underdeveloped countries"[tw] OR "underdeveloped nation"[tw] OR "underdeveloped nations"[tw] OR "underdeveloped population"[tw] OR "underdeveloped populations"[tw] OR "underdeveloped world"[tw] OR "middle income country"[tw] OR "middle income countries"[tw] OR "middle income nation"[tw] OR "middle income nations"[tw] OR "middle income population"[tw] OR "middle income populations"[tw] OR "low income country"[tw] OR "low income countries"[tw] OR "low income nation"[tw] OR "low income nations"[tw] OR "low income population"[tw] OR "low income populations"[tw] OR "lower income country"[tw] OR "lower income countries"[tw] OR "lower income nation"[tw] OR "lower income nations"[tw] OR "lower income population"[tw] OR "lower income populations"[tw] OR "underserved country"[tw] OR "underserved countries"[tw] OR "underserved nation"[tw] OR "underserved nations"[tw] OR "underserved population"[tw] OR "underserved populations"[tw] OR "underserved world"[tw] OR "under served country"[tw] OR "under served countries"[tw] OR "under served nation"[tw] OR "under served nations"[tw] OR "under served population"[tw] OR "under served populations"[tw] OR "under served world"[tw] OR "deprived country"[tw] OR "deprived countries"[tw] OR "deprived nation"[tw] OR "deprived nations"[tw] OR "deprived population"[tw] OR "deprived populations"[tw] OR "deprived world"[tw] OR "poor country"[tw] OR "poor countries"[tw] OR "poor nation"[tw] OR "poor nations"[tw] OR "poor population"[tw] OR "poor populations"[tw] OR "poor world"[tw] OR "poorer country"[tw] OR "poorer countries"[tw] OR "poorer nation"[tw] OR "poorer nations"[tw] OR "poorer population"[tw] OR "poorer populations"[tw] OR "poorer world"[tw] OR "developing economy"[tw] OR "developing economies"[tw] OR "less developed economy"[tw] OR "less developed economies"[tw] OR "lesser developed economy"[tw] OR "lesser developed economies"[tw] OR "under developed economy"[tw] OR "under developed economies"[tw] OR "underdeveloped economy"[tw] OR "underdeveloped economies"[tw] OR "middle income economy"[tw] OR "middle income economies"[tw] OR "low income economy"[tw] OR "low income economies"[tw] OR "lower income economy"[tw] OR "lower income economies"[tw] OR "low gdp"[tw] OR "low gnp"[tw] OR "low gross domestic"[tw] OR "low gross national"[tw] OR "lower gdp"[tw] OR "lower gnp"[tw] OR "lower gross domestic"[tw] OR "lower gross national"[tw] OR lmic[tw] OR lmics[tw] OR "third world"[tw] OR "lami country"[tw] OR "lami countries"[tw] OR "transitional country"[tw] OR "transitional countries"[tw]

#3 Search Africa[tw] OR Asia[tw] OR Caribbean[tw] OR West Indies[tw] OR South America[tw] OR Latin America[tw] OR Central America[tw] OR Afghanistan[tw] OR Albania[tw] OR Algeria[tw] OR Angola[tw] OR Antigua[tw] OR Barbuda[tw] OR Argentina[tw] OR Armenia[tw] OR Armenian[tw] OR Aruba[tw] OR Azerbaijan[tw] OR Bahrain[tw] OR Bangladesh[tw] OR Barbados[tw] OR Benin[tw] OR Byelarus[tw] OR Byelorussian[tw] OR Belarus[tw] OR Belorussian[tw] OR Belorussia[tw] OR Belize[tw] OR Bhutan[tw] OR Bolivia[tw] OR Bosnia[tw] OR Herzegovina[tw] OR Hercegovina[tw] OR Botswana[tw] OR Brasil[tw] OR Brazil[tw] OR Bulgaria[tw] OR Burkina Faso[tw] OR Burkina Fasso[tw] OR Upper Volta[tw] OR Burundi[tw] OR Urundi[tw] OR Cambodia[tw] OR Khmer Republic[tw] OR Kampuchea[tw] OR Cameroon[tw] OR Cameroons[tw] OR Cameron[tw] OR Camerons[tw] OR Cape Verde[tw] OR Central African Republic[tw] OR Chad[tw] OR Chile[tw] OR China[tw] OR Colombia[tw] OR Comoros[tw] OR Comoro Islands[tw] OR Comores[tw] OR Mayotte[tw] OR Congo[tw] OR Zaire[tw] OR Costa Rica[tw] OR Cote d'Ivoire[tw] OR Ivory Coast[tw] OR Croatia[tw] OR Cuba[tw] OR Cyprus[tw] OR Czechoslovakia[tw] OR Czech Republic[tw] OR Slovakia[tw] OR Slovak Republic[tw] OR Djibouti[tw] OR French Somaliland[tw] OR Dominica[tw] OR Dominican Republic[tw] OR East Timor[tw] OR East Timur[tw] OR Timor Leste[tw] OR Ecuador[tw] OR Egypt[tw] OR United Arab Republic[tw] OR El Salvador[tw] OR Eritrea[tw] OR Estonia[tw] OR Ethiopia[tw] OR Fiji[tw] OR Gabon[tw] OR Gabonese Republic[tw] OR Gambia[tw] OR Gaza[tw] OR Georgia Republic[tw] OR Georgian Republic[tw] OR Ghana[tw] OR Gold Coast[tw] OR Greece[tw] OR Grenada[tw] OR Guatemala[tw] OR Guinea[tw] OR Guam[tw] OR Guiana[tw] OR Guyana[tw] OR Haiti[tw] OR Honduras[tw] OR Hungary[tw] OR India[tw] OR Maldives[tw] OR Indonesia[tw] OR Iran[tw] OR Iraq[tw] OR Isle of Man[tw] OR Jamaica[tw] OR Jordan[tw] OR Kazakhstan[tw] OR Kazakh[tw] OR Kenya[tw] OR Kiribati[tw] OR Korea[tw] OR Kosovo[tw] OR Kyrgyzstan[tw] OR Kirghizia[tw] OR Kyrgyz Republic[tw] OR Kirghiz[tw] OR Kirgizstan[tw] OR "Lao PDR"[tw] OR Laos[tw] OR Latvia[tw] OR Lebanon[tw] OR Lesotho[tw] OR Basutoland[tw] OR Liberia[tw] OR Libya[tw] OR Lithuania[tw]

#2 Search Macedonia[tw] OR Madagascar[tw] OR Malagasy Republic[tw] OR Malaysia[tw] OR Malaya[tw] OR Malay[tw] OR Sabah[tw] OR Sarawak[tw] OR Malawi[tw] OR Nyasaland[tw] OR Mali[tw] OR Malta[tw] OR Marshall Islands[tw] OR Mauritania[tw] OR Mauritius[tw] OR Agalega Islands[tw] OR Mexico[tw] OR Micronesia[tw] OR Middle East[tw] OR Moldova[tw] OR Moldovia[tw] OR Moldovian[tw] OR Mongolia[tw] OR Montenegro[tw] OR Morocco[tw] OR Ifni[tw] OR Mozambique[tw] OR Myanmar[tw] OR Myanma[tw] OR Burma[tw] OR Namibia[tw] OR Nepal[tw] OR Netherlands Antilles[tw] OR New Caledonia[tw] OR Nicaragua[tw] OR Niger[tw] OR Nigeria[tw] OR Northern Mariana Islands[tw] OR Oman[tw] OR Muscat[tw] OR Pakistan[tw] OR Palau[tw] OR Palestine[tw] OR Panama[tw] OR Paraguay[tw] OR Peru[tw] OR Philippines[tw] OR Philipines[tw] OR Phillipines[tw] OR Phillippines[tw] OR Poland[tw] OR Portugal[tw] OR Puerto Rico[tw] OR Romania[tw] OR Rumania[tw] OR Roumania[tw] OR Russia[tw] OR Russian[tw] OR Rwanda[tw] OR Ruanda[tw] OR Saint Kitts[tw] OR St Kitts[tw] OR Nevis[tw] OR Saint Lucia[tw] OR St Lucia[tw] OR Saint Vincent[tw] OR St Vincent[tw] OR Grenadines[tw] OR Samoa[tw] OR Samoan Islands[tw] OR Navigator Island[tw] OR Navigator Islands[tw] OR Sao Tome[tw] OR Saudi Arabia[tw] OR Senegal[tw] OR Serbia[tw] OR Montenegro[tw] OR Seychelles[tw] OR Sierra Leone[tw] OR Slovenia[tw] OR Sri Lanka[tw] OR Ceylon[tw] OR Solomon Islands[tw] OR Somalia[tw] OR Sudan[tw] OR Suriname[tw] OR Surinam[tw] OR Swaziland[tw] OR Syria[tw] OR Tajikistan[tw] OR Tadzhikistan[tw] OR Tadjikistan[tw] OR Tadzhik[tw] OR Tanzania[tw] OR Thailand[tw] OR Togo[tw] OR Togolese Republic[tw] OR Tonga[tw] OR Trinidad[tw] OR Tobago[tw] OR Tunisia[tw] OR Turkey[tw] OR Turkmenistan[tw] OR Turkmen[tw] OR Uganda[tw] OR Ukraine[tw] OR Uruguay[tw] OR USSR[tw] OR Soviet Union[tw] OR Union of Soviet Socialist Republics[tw] OR Uzbekistan[tw] OR Uzbek OR Vanuatu[tw] OR New Hebrides[tw] OR Venezuela[tw] OR Vietnam[tw] OR Viet Nam[tw] OR West Bank[tw] OR Yemen[tw] OR Yugoslavia[tw] OR Zambia[tw] OR Zimbabwe[tw] OR Rhodesia[tw]

#1 Search Developing Countries[Mesh:noexp] OR Africa[Mesh:noexp] OR Africa, Northern[Mesh:noexp] OR Africa South of the Sahara[Mesh:noexp] OR Africa, Central[Mesh:noexp] OR Africa, Eastern[Mesh:noexp] OR Africa, Southern[Mesh:noexp] OR Africa, Western[Mesh:noexp] OR Asia[Mesh:noexp] OR Asia, Central[Mesh:noexp] OR Asia, Southeastern[Mesh:noexp] OR Asia, Western[Mesh:noexp] OR Caribbean Region[Mesh:noexp] OR West Indies[Mesh:noexp] OR South America[Mesh:noexp] OR Latin America[Mesh:noexp] OR Central America[Mesh:noexp] OR Afghanistan[Mesh:noexp] OR Albania[Mesh:noexp] OR Algeria[Mesh:noexp] OR American Samoa[Mesh:noexp] OR Angola[Mesh:noexp] OR "Antigua and Barbuda"[Mesh:noexp] OR Argentina[Mesh:noexp] OR Armenia[Mesh:noexp] OR Azerbaijan[Mesh:noexp] OR Bahrain[Mesh:noexp] OR Bangladesh[Mesh:noexp] OR Barbados[Mesh:noexp] OR Benin[Mesh:noexp] OR Byelarus[Mesh:noexp] OR Belize[Mesh:noexp] OR Bhutan[Mesh:noexp] OR Bolivia[Mesh:noexp] OR Bosnia-Herzegovina[Mesh:noexp] OR Botswana[Mesh:noexp] OR Brazil[Mesh:noexp] OR Bulgaria[Mesh:noexp] OR Burkina Faso[Mesh:noexp] OR Burundi[Mesh:noexp] OR Cambodia[Mesh:noexp] OR Cameroon[Mesh:noexp] OR Cape Verde[Mesh:noexp] OR Central African Republic[Mesh:noexp] OR Chad[Mesh:noexp] OR Chile[Mesh:noexp] OR China[Mesh:noexp] OR Colombia[Mesh:noexp] OR Comoros[Mesh:noexp] OR Congo[Mesh:noexp] OR Costa Rica[Mesh:noexp] OR Cote d'Ivoire[Mesh:noexp] OR Croatia[Mesh:noexp] OR Cuba[Mesh:noexp] OR Cyprus[Mesh:noexp] OR Czechoslovakia[Mesh:noexp] OR Czech Republic[Mesh:noexp] OR Slovakia[Mesh:noexp] OR Djibouti[Mesh:noexp] OR "Democratic Republic of the Congo"[Mesh:noexp] OR Dominica[Mesh:noexp] OR Dominican Republic[Mesh:noexp] OR East Timor[Mesh:noexp] OR Ecuador[Mesh:noexp] OR Egypt[Mesh:noexp] OR El Salvador[Mesh:noexp] OR Eritrea[Mesh:noexp] OR Estonia[Mesh:noexp] OR Ethiopia[Mesh:noexp] OR Fiji[Mesh:noexp] OR Gabon[Mesh:noexp] OR Gambia[Mesh:noexp] OR "Georgia (Republic)"[Mesh:noexp] OR Ghana[Mesh:noexp] OR Greece[Mesh:noexp] OR Grenada[Mesh:noexp] OR Guatemala[Mesh:noexp] OR Guinea[Mesh:noexp] OR Guinea-Bissau[Mesh:noexp] OR Guam[Mesh:noexp] OR Guyana[Mesh:noexp] OR Haiti[Mesh:noexp] OR Honduras[Mesh:noexp] OR Hungary[Mesh:noexp] OR India[Mesh:noexp] OR Indonesia[Mesh:noexp] OR Iran[Mesh:noexp] OR Iraq[Mesh:noexp] OR Jamaica[Mesh:noexp] OR Jordan[Mesh:noexp] OR Kazakhstan[Mesh:noexp] OR Kenya[Mesh:noexp] OR Korea[Mesh:noexp] OR Kosovo[Mesh:noexp] OR Kyrgyzstan[Mesh:noexp] OR Laos[Mesh:noexp] OR Latvia[Mesh:noexp] OR Lebanon[Mesh:noexp] OR Lesotho[Mesh:noexp] OR Liberia[Mesh:noexp] OR Libya[Mesh:noexp] OR Lithuania[Mesh:noexp] OR Macedonia[Mesh:noexp] OR Madagascar[Mesh:noexp] OR Malaysia[Mesh:noexp] OR Malawi[Mesh:noexp] OR Mali[Mesh:noexp] OR Malta[Mesh:noexp] OR Mauritania[Mesh:noexp] OR Mauritius[Mesh:noexp] OR Mexico[Mesh:noexp] OR Micronesia[Mesh:noexp] OR Middle East[Mesh:noexp] OR Moldova[Mesh:noexp] OR Mongolia[Mesh:noexp] OR Montenegro[Mesh:noexp] OR Morocco[Mesh:noexp] OR Mozambique[Mesh:noexp] OR Myanmar[Mesh:noexp] OR Namibia[Mesh:noexp] OR Nepal[Mesh:noexp] OR Netherlands Antilles[Mesh:noexp] OR New Caledonia[Mesh:noexp] OR Nicaragua[Mesh:noexp] OR Niger[Mesh:noexp] OR Nigeria[Mesh:noexp] OR Oman[Mesh:noexp] OR Pakistan[Mesh:noexp] OR Palau[Mesh:noexp] OR Panama[Mesh:noexp] OR Papua New Guinea[Mesh:noexp] OR Paraguay[Mesh:noexp] OR Peru[Mesh:noexp] OR Philippines[Mesh:noexp] OR Poland[Mesh:noexp] OR Portugal[Mesh:noexp] OR Puerto Rico[Mesh:noexp] OR Romania[Mesh:noexp] OR Russia[Mesh:noexp] OR "Russia (Pre-1917)"[Mesh:noexp] OR Rwanda[Mesh:noexp] OR "Saint Kitts and Nevis"[Mesh:noexp] OR Saint Lucia[Mesh:noexp] OR "Saint Vincent and the Grenadines"[Mesh:noexp] OR Samoa[Mesh:noexp] OR Saudi Arabia[Mesh:noexp] OR Senegal[Mesh:noexp] OR Serbia[Mesh:noexp] OR Montenegro[Mesh:noexp] OR Seychelles[Mesh:noexp] OR Sierra Leone[Mesh:noexp] OR Slovenia[Mesh:noexp] OR Sri Lanka[Mesh:noexp] OR Somalia[Mesh:noexp] OR South Africa[Mesh:noexp] OR Sudan[Mesh:noexp] OR Suriname[Mesh:noexp] OR Swaziland[Mesh:noexp] OR Syria[Mesh:noexp] OR Tajikistan[Mesh:noexp] OR Tanzania[Mesh:noexp] OR Thailand[Mesh:noexp] OR Togo[Mesh:noexp] OR Tonga[Mesh:noexp] OR "Trinidad and Tobago"[Mesh:noexp] OR Tunisia[Mesh:noexp] OR Turkey[Mesh:noexp] OR Turkmenistan[Mesh:noexp] OR Uganda[Mesh:noexp] OR Ukraine[Mesh:noexp]

OR Uruguay[Mesh:noexp] OR USSR[Mesh:noexp] OR Uzbekistan[Mesh:noexp] OR Vanuatu[Mesh:noexp] OR Venezuela[Mesh:noexp] OR Vietnam[Mesh:noexp] OR Yemen[Mesh:noexp] OR Yugoslavia[Mesh:noexp] OR Zambia[Mesh:noexp] OR Zimbabwe[Mesh:noexp]

SOURCE (Cochrane Effective Practice and Organisation of Care (EPOC) Review Group 2015)

Appendix 2: Literature search strategy for the qualitative interpretive review

NAME OF DATABASE	DATE OF LAST SEARCH	RESULTS						
		TOTAL CITATIONS IDENTIFIED	POTENTIALLY RELEVANT ARTICLES	TOTAL NUMBER OF CITATIONS IN THE COMBINED DATA BASES	FOLLOWING REMOVAL OF DUPLICATES (n=15)	AFTER TITLE AND ABSTRACT SCREENING (n=94)	IDENTIFIED THROUGH REFERENCE LIST (n=1)	ARTICLES ELIGIBLE FOR REVIEW
Africa-Wide information	28/12/2015	9	5					
Cumulative Index of Nursing and Allied Health Literature (CINAHL)	28/12/2015	3	2					
Econlit	28/12/2015	4	2					
Emerald	29/12/2015	7545	73					
PsycINFO	28/12/2015	8	4					
PubMed	28/12/2015	24	12					
Scopus	31/12/2015	55	18					
SocINDEX with Full Text	28/12/2015	2	1					
Total		7650	117	117	102	8	9	9

PUBMED SEARCH STRATEGY (24)

(((((((comprehensive[All Fields] AND ("primary health care"[MeSH Terms] OR ("primary"[All Fields] AND "health"[All Fields] AND "care"[All Fields]) OR "primary health care"[All Fields])) OR (("public-private sector partnerships"[MeSH Terms] OR ("public-private"[All Fields] AND "sector"[All Fields] AND "partnerships"[All Fields]) OR "public-private sector partnerships"[All Fields] OR ("public"[All Fields] AND "private"[All Fields] AND "partnership"[All Fields]) OR "public private partnership"[All Fields]) AND ("2000/01/01"[PDAT] : "3000/12/31"[PDAT]))) OR ("Public-Private Sector Partnerships"[Mesh] AND ("2000/01/01"[PDAT] : "3000/12/31"[PDAT])) AND (Filters[All Fields] AND (("publishing"[MeSH Terms] OR "publishing"[All Fields] OR "publication"[All Fields] OR "publications"[MeSH Terms] OR "publications"[All Fields]) AND date[All Fields] AND 2000/01/01[All Fields])) OR

((outsource[All Fields] OR outsource'[All Fields] OR outsourceability[All Fields] OR ("outsourced services"[MeSH Terms] OR ("outsourced"[All Fields] AND "services"[All Fields]) OR "outsourced services"[All Fields] OR "outsourced"[All Fields]) OR outsourced'[All Fields] OR outsourcee[All Fields] OR outsourcer[All Fields] OR outsourcer's[All Fields] OR outsourcers[All Fields] OR outsources[All Fields] OR ("outsourced services"[MeSH Terms] OR ("outsourced"[All Fields] AND "services"[All Fields]) OR "outsourced services"[All Fields] OR "outsourcing"[All Fields]) OR outsourcing'[All Fields] OR outsourcing's[All Fields]) OR "Outsourced Services"[Mesh]) AND ("Primary Health Care"[Mesh] OR ("primary health care"[MeSH Terms] OR ("primary"[All Fields] AND "health"[All Fields] AND "care"[All Fields]) OR "primary health care"[All Fields])) AND ("Politics"[Mesh] AND ("2000/01/01"[PDAT] : "3000/12/31"[PDAT]))) OR (("politics"[MeSH Terms] OR "politics"[All Fields] OR "decentralization"[All Fields]) AND ("2000/01/01"[PDAT] : "3000/12/31"[PDAT]))) OR (decentralisation[All Fields] AND ("2000/01/01"[PDAT] : "3000/12/31"[PDAT]))) OR ((((((((((((((("health"[MeSH Terms] OR "health"[All Fields]) AND sector[All Fields] AND reform[All Fields]) OR (("health"[MeSH Terms] OR "health"[All Fields]) AND sector[All Fields] AND reforms[All Fields])) OR "Health Care Reform"[Mesh]) OR (health care reform[All Fields] OR health care reform's[All Fields] OR health care reformation[All Fields] OR health care reformers[All Fields] OR health care reforms[All Fields])) OR "Health Policy"[Mesh]) OR (health police[All Fields] OR health polices[All Fields] OR health policies[All Fields] OR health policing[All Fields] OR health policy[All Fields] OR health policyand[All Fields] OR health policymaker[All Fields] OR health policymakers[All Fields] OR health policymaking[All Fields])) OR (("health"[MeSH Terms] OR "health"[All Fields]) AND system[All Fields] AND strengthening[All Fields] AND ("Intervention (Amstelveen)"[Journal] OR "intervention"[All Fields] OR "Interv Sch Clin"[Journal] OR "intervention"[All Fields]))) OR (("health"[MeSH Terms] OR "health"[All Fields]) AND system[All Fields] AND strengthening[All Fields] AND interventions[All Fields])) OR (("Universal"[Supplementary Concept] OR "Universal"[All Fields] OR "universal"[All Fields]) AND ("health"[MeSH Terms] OR "health"[All Fields]) AND ("AHIP Cover"[Journal] OR "coverage"[All Fields]))) OR "user fee removal"[All Fields]) OR "Reimbursement, Incentive"[Mesh]) OR "pay for performance"[All Fields]) OR "health sector strategy"[All Fields]) OR (health sector strategic[All Fields] OR health sector strategies[All Fields] OR health sector strategy[All Fields])) OR "health system reform"[All Fields]) OR "health reform"[All Fields] OR (user[All Fields] AND ("economics"[Subheading] OR "economics"[All Fields] OR "fees"[All Fields] OR "fees and charges"[MeSH Terms] OR ("fees"[All Fields] AND "charges"[All Fields]) OR "fees and charges"[All Fields]))) OR (performance[All Fields] AND based[All Fields] AND ("economics"[Subheading] OR "economics"[All Fields] OR "financing"[All Fields] OR "economics"[MeSH Terms] OR "financing"[All Fields]))) OR "performance based financing"[All Fields]) AND ((((institutional[All Fields] AND ("ethnology"[Subheading] OR "ethnology"[All Fields] OR "culture"[All Fields] OR "culture"[MeSH Terms]) AND Filters[All Fields]) AND (("publishing"[MeSH Terms] OR "publishing"[All Fields] OR "publication"[All Fields] OR "publications"[MeSH Terms] OR "publications"[All Fields]) AND date[All Fields] AND 2000/01/01[All Fields])) OR "Organizational Culture"[Mesh] OR (organizational culture[Title/Abstract] OR organizational cultures[Title/Abstract])) OR (organisational culture[All Fields] OR organisational cultures[All Fields])) AND ("Health Plan Implementation"[Mesh] OR implementation[All Fields]) AND ((((("developing countries"[MeSH Terms:noexp] OR "africa"[MeSH Terms:noexp] OR "africa, northern"[MeSH Terms:noexp] OR "africa south of the sahara"[MeSH Terms:noexp] OR "africa, central"[MeSH Terms:noexp] OR "africa, eastern"[MeSH Terms:noexp] OR "africa, southern"[MeSH Terms:noexp] OR "africa, western"[MeSH Terms:noexp] OR "asia"[MeSH Terms:noexp] OR "asia, central"[MeSH Terms:noexp] OR "asia, southeastern"[MeSH Terms:noexp] OR "asia, western"[MeSH Terms:noexp] OR "caribbean region"[MeSH Terms:noexp] OR "west indies"[MeSH Terms:noexp] OR "south america"[MeSH Terms:noexp] OR "latin america"[MeSH Terms:noexp] OR "central america"[MeSH Terms:noexp] OR "afghanistan"[MeSH Terms:noexp] OR "albania"[MeSH Terms:noexp] OR "algeria"[MeSH Terms:noexp] OR "american samoa"[MeSH Terms:noexp] OR "angola"[MeSH Terms:noexp] OR "Antigua and Barbuda"[Mesh:noexp] OR "argentina"[MeSH Terms:noexp] OR "armenia"[MeSH Terms:noexp] OR "azerbaijan"[MeSH Terms:noexp] OR "bahrain"[MeSH Terms:noexp] OR "bangladesh"[MeSH Terms:noexp] OR "barbados"[MeSH Terms:noexp] OR "benin"[MeSH Terms:noexp] OR "republic of belarus"[MeSH Terms:noexp] OR "belize"[MeSH Terms:noexp] OR "bhutan"[MeSH Terms:noexp] OR "bolivia"[MeSH Terms:noexp] OR "bosnia and herzegovina"[MeSH Terms:noexp] OR "botswana"[MeSH Terms:noexp] OR "brazil"[MeSH Terms:noexp] OR "bulgaria"[MeSH Terms:noexp] OR "burkina faso"[MeSH Terms:noexp] OR "burundi"[MeSH Terms:noexp] OR "cambodia"[MeSH Terms:noexp] OR "cameroon"[MeSH Terms:noexp] OR "cape verde"[MeSH Terms:noexp] OR "central african republic"[MeSH Terms:noexp] OR "chad"[MeSH Terms:noexp] OR "chile"[MeSH Terms:noexp] OR "china"[MeSH Terms:noexp] OR "colombia"[MeSH Terms:noexp] OR "comoros"[MeSH Terms:noexp] OR "congo"[MeSH Terms:noexp] OR "costa rica"[MeSH Terms:noexp] OR "cote d'ivoire"[MeSH Terms:noexp] OR "croatia"[MeSH Terms:noexp] OR "cuba"[MeSH Terms:noexp] OR "cyprus"[MeSH Terms:noexp] OR "czechoslovakia"[MeSH Terms:noexp] OR "czech republic"[MeSH Terms:noexp] OR "slovakia"[MeSH Terms:noexp] OR "djibouti"[MeSH Terms:noexp] OR "Democratic Republic of the Congo"[Mesh:noexp] OR "dominica"[MeSH Terms:noexp] OR "dominican republic"[MeSH Terms:noexp] OR "timor-leste"[MeSH Terms:noexp] OR "ecuador"[MeSH Terms:noexp] OR "egypt"[MeSH Terms:noexp] OR "el salvador"[MeSH Terms:noexp] OR "eritrea"[MeSH Terms:noexp] OR "estonia"[MeSH Terms:noexp] OR "ethiopia"[MeSH Terms:noexp] OR "fiji"[MeSH Terms:noexp] OR "gabon"[MeSH Terms:noexp] OR "gambia"[MeSH Terms:noexp] OR "Georgia (Republic)"[Mesh:noexp] OR "ghana"[MeSH Terms:noexp] OR "greece"[MeSH Terms:noexp] OR "grenada"[MeSH Terms:noexp] OR "guatemala"[MeSH Terms:noexp] OR "guinea"[MeSH Terms:noexp] OR "guinea-bissau"[MeSH Terms:noexp] OR "guam"[MeSH Terms:noexp] OR "guyana"[MeSH Terms:noexp] OR "haiti"[MeSH Terms:noexp] OR "honduras"[MeSH Terms:noexp] OR "hungary"[MeSH Terms:noexp] OR "india"[MeSH Terms:noexp] OR "indonesia"[MeSH Terms:noexp] OR "iran"[MeSH Terms:noexp] OR "iraq"[MeSH Terms:noexp]

OR "jamaica"[MeSH Terms:noexp] OR "jordan"[MeSH Terms:noexp] OR "kazakhstan"[MeSH Terms:noexp] OR "kenya"[MeSH Terms:noexp] OR "korea"[MeSH Terms:noexp] OR "kosovo"[MeSH Terms:noexp] OR "kyrgyzstan"[MeSH Terms:noexp] OR "laos"[MeSH Terms:noexp] OR "latvia"[MeSH Terms:noexp] OR "lebanon"[MeSH Terms:noexp] OR "lesotho"[MeSH Terms:noexp] OR "liberia"[MeSH Terms:noexp] OR "libya"[MeSH Terms:noexp] OR "lithuania"[MeSH Terms:noexp] OR "macedonia (republic)"[MeSH Terms:noexp] OR "madagascar"[MeSH Terms:noexp] OR "malaysia"[MeSH Terms:noexp] OR "malawi"[MeSH Terms:noexp] OR "mali"[MeSH Terms:noexp] OR "malta"[MeSH Terms:noexp] OR "mauritania"[MeSH Terms:noexp] OR "mauritius"[MeSH Terms:noexp] OR "mexico"[MeSH Terms:noexp] OR "micronesia"[MeSH Terms:noexp] OR "middle east"[MeSH Terms:noexp] OR "moldova"[MeSH Terms:noexp] OR "mongolia"[MeSH Terms:noexp] OR "montenegro"[MeSH Terms:noexp] OR "morocco"[MeSH Terms:noexp] OR "mozambique"[MeSH Terms:noexp] OR "myanmar"[MeSH Terms:noexp] OR "namibia"[MeSH Terms:noexp] OR "nepal"[MeSH Terms:noexp] OR "netherlands antilles"[MeSH Terms:noexp] OR "new caledonia"[MeSH Terms:noexp] OR "nicaragua"[MeSH Terms:noexp] OR "niger"[MeSH Terms:noexp] OR "nigeria"[MeSH Terms:noexp] OR "oman"[MeSH Terms:noexp] OR "pakistan"[MeSH Terms:noexp] OR "palau"[MeSH Terms:noexp] OR "panama"[MeSH Terms:noexp] OR "papua new guinea"[MeSH Terms:noexp] OR "paraguay"[MeSH Terms:noexp] OR "peru"[MeSH Terms:noexp] OR "philippines"[MeSH Terms:noexp] OR "poland"[MeSH Terms:noexp] OR "portugal"[MeSH Terms:noexp] OR "puerto rico"[MeSH Terms:noexp] OR "romania"[MeSH Terms:noexp] OR "russia"[MeSH Terms:noexp] OR "Russia (Pre-1917)"[Mesh:noexp] OR "rwanda"[MeSH Terms:noexp] OR "Saint Kitts and Nevis"[Mesh:noexp] OR "saint lucia"[MeSH Terms:noexp] OR "Saint Vincent and the Grenadines"[Mesh:noexp] OR "samoa"[MeSH Terms:noexp] OR "saudi arabia"[MeSH Terms:noexp] OR "senegal"[MeSH Terms:noexp] OR "serbia"[MeSH Terms:noexp] OR "montenegro"[MeSH Terms:noexp] OR 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[ti] denotes a word in the title.
[ot] other term
[pl] place of publication

Source: (Higgins, Green 2008)

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FILTERS APPLIED:
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Appendix 3: Critical Appraisal Skills Programme (CASP) tool

10 questions to help you make sense of qualitative research

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of a qualitative research:

- **Are the results of the review valid?**
- **What are the results?**
- **Will the results help locally?**

The 10 questions on the following pages are designed to help you think about these issues systematically. The first two questions are screening questions and can be answered quickly. If the answer to both is "yes", it is worth proceeding with the remaining questions.

There is some degree of overlap between the questions, you are asked to record a "yes", "no" or "can't tell" to most of the questions. A number of italicised prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

These checklists were designed to be used as educational tools as part of a workshop setting

There will not be time in the small groups to answer them all in detail!

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Screening Questions

1. Was there a clear statement of the aims of the research? ❑ Yes ❑ Can't tell ❑ No

HINT: Consider

- What was the goal of the research?
- Why it was thought important?
- Its relevance

2. Is a qualitative methodology appropriate? ❑ Yes ❑ Can't tell ❑ No

HINT: Consider

- If the research seeks to interpret or illuminate the actions and/or subjective experiences of research participants
- Is qualitative research the right methodology for addressing the research goal?

Detailed questions

3. Was the research design appropriate to address the aims of the research? ❑ Yes ❑ Can't tell ❑ No

HINT: Consider

- If the researcher has justified the research design (e.g. have they discussed how they decided which method to use)?

4. Was the recruitment strategy appropriate to the aims of the research? ❑ Yes ❑ Can't tell ❑ No

HINT:Consider

- If the researcher has explained how the participants were selected
- If they explained why the participants they selected were the most appropriate to provide access to the type of knowledge sought by the study
- If there are any discussions around recruitment (e.g. why some people chose not to take part)

5. Was the data collected in a way that addressed the research issue?

❑ Yes ❑ Can't tell ❑ No

HINT: Consider

- If the setting for data collection was justified
- If it is clear how data were collected (e.g. focus group, semi-structured interview etc.)
- If the researcher has justified the methods chosen
- If the researcher has made the methods explicit (e.g. for interview method, is there an indication of how interviews were conducted, or did they use a topic guide)?
- If methods were modified during the study. If so, has the researcher explained how and why?
- If the form of data is clear (e.g. tape recordings, video material, notes etc)
- If the researcher has discussed saturation of data

6. Has the relationship between researcher and participants been adequately considered?

❑ Yes ❑ Can't tell ❑ No

HINT: Consider

- If the researcher critically examined their own role, potential bias and influence during
  (a) Formulation of the research questions
  (b) Data collection, including sample recruitment and choice of location
- How the researcher responded to events during the study and whether they considered the implications of any changes in the research design

7. Have ethical issues been taken into consideration?

❑ Yes ❑ Can't tell ❑ No

HINT: Consider

- If there are sufficient details of how the research was explained to participants for the reader to assess whether ethical standards were maintained
- If the researcher has discussed issues raised by the study (e.g. issues around informed consent or confidentiality or how they have handled the effects of the study on the participants during and after the study)
- If approval has been sought from the ethics committee

8. Was the data analysis sufficiently rigorous?

❑ Yes ❑ Can't tell ❑ No

HINT: Consider

- If there is an in-depth description of the analysis process
- If thematic analysis is used. If so, is it clear how the categories/themes were derived from the data?
- Whether the researcher explains how the data presented were selected from the original sample to demonstrate the analysis process
- If sufficient data are presented to support the findings
- To what extent contradictory data are taken into account
- Whether the researcher critically examined their own role, potential bias and influence during analysis and selection of data for presentation

9. Is there a clear statement of findings?

❑ Yes ❑ Can't tell ❑ No

HINT: Consider

- If the findings are explicit
- If there is adequate discussion of the evidence both for and against the researchers arguments
- If the researcher has discussed the credibility of their findings (e.g. triangulation, respondent validation,

10. How valuable is the research?

HINT: Consider

- If the researcher discusses the contribution the study makes to existing knowledge or understanding e.g. do they consider the findings in relation to current practice or policy?, or relevant research-based literature?
- If they identify new areas where research is necessary
- If the researchers have discussed whether or how the findings can be transferred to other populations or considered other ways the research may be used

Appendix 4: Template for the summary of articles included in the qualitative interpretive review

Title of article, Name of author, publication year	Geographical region	Type of health sector reform	Methods Study setting	Brief overview of the article

Appendix 5: Data extraction template for the articles included in the qualitative interpretive review

Title of article, Name of author, publication year	Geographical or country setting	Type of health sector reform	Data on organisational culture	Authorial judgements on aspects of organisational culture	Reviewer's judgments on organisational culture	What influence on implementation?

PART B: LITERATURE REVIEW

MAPPING THE LITERATURE ON ORGANISATIONAL CULTURE IN THE HEALTH SECTOR IN LOW AND MIDDLE INCOME COUNTRIES

(A SCOPING REVIEW)

Part B of the dissertation is structured into three sections:

- Introduction- this section provides a general description of organisational culture and its conceptual frameworks, as well as methodological approaches for assessing organisational culture that were identified from broader reading of literature on organisational culture.
- Scoping review- the outline of this section includes a description of the literature search strategy used for the scoping review and a map of the retrieved literature based on dominant themes on organisational culture in the health sector in LMICs. This is followed by a discussion of the review findings where the reviewer describes how the authors defined and assessed organisational culture. The reviewer then classifies the different dimensions of organisational culture identified in the reviewed articles using the Competing Values Framework.
- Conclusion section which provides a summary of the findings of the scoping review.

Introduction

Organisational culture is a concept that has been widely used in organisational analysis to describe organisational environments in the management sector (Parmelli et al. 2011) as well as the corporate sector (Wooten, Crane 2003). Compared to these sectors, the health sector has lagged in its adoption of this concept (Wooten, Crane 2003) particularly in Low and Middle Income Countries (LMICs) (Gilson, Erasmus 2004). Yet a good understanding of organisational culture provides the basis for assessing the prevailing culture, preserving the desired dimensions and transforming the undesired dimensions within the existing organisational culture towards achieving the desired organisational goals and objectives (Cameron, Quinn 2005). A general reading of literature on organisational culture provides the following useful insights on organisational culture: its definition, common conceptual frameworks as well as methods used in assessing organisational culture.

Definition of organisational culture

Existing literature is replete with different definitions of organisational culture ranging from simple definitions such as “the way things are done around here”(Davies, Nutley & Mannion 2000, p.112) to more complex ones such as “a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems”(Schein 1984, p.3). How things are done constitute the practices through which the culture is manifested (House et al. 2004).

Organisational culture refers to a system of values, beliefs, norms and other social constructs that are shared by members of an organisation (Grindle 1997, Hofstede, Hofstede & Minkov 1997, Schein 2006, Tharp 2009). An organisation refers to a structured and formalized entity made up of a group of people who have come together for a common purpose. It can be public, private or non-governmental (Lusthaus 2002). The degree to which culture is shared by the members of an organisation can be assessed from three perspectives: integration, differentiation and fragmentation. From an integration perspective, organisational culture is shared widely and is deeply entrenched in the organisation. From a differentiation perspective, culture is shared within the confines of units and subunits thereby forming subcultures. According to Cameron and Quinn (2005) and Morgan and Ogbonna (2008), the study and aggregation of different subcultures within an organisation can provide an estimation and in-depth understanding of the overall organisational culture. Lastly, from a fragmentation perspective, culture is not shared collectively. Instead, it is constructed by each individual in the organisation leading to ambiguity and discordance among the members of the organisation (Martin 1992).

The culture of an organisation is manifested in symbols such as titles, dominant styles of leadership, formal procedures, ceremonies and values (Cameron, Quinn 2005) as well as language used, stories told and informal rules (Martin 1992). According to Lusthaus (2002) and North (1990), the formal and informal rules that govern the interaction of actors within a system are referred to as the institution and culture is one element of this institution (Lusthaus 2002). Organisational culture sets the boundaries and defines the identity of the group or organisation and is therefore considered stable (Lim 1995, Schein 2006). It is reinforced through passive and active learning during interaction and socialisation in the organisation (Schein 2006, Tharp 2009). It has also been described as a “cognitive map” (Wooten, Crane 2003, p.275) that enables members of the group or organisation to differentiate between what is acceptable and what is not acceptable. In this way, culture enables them to direct their actions and behaviours appropriately (Wooten, Crane 2003, Schein 2006). Organisational culture therefore guides or determines how members of an organisation behave (Schein 2006, Sinclair 1993) and can therefore be seen as an attribute that policy makers and managers can influence to bring about improvement in the performance of an organisation (Sinclair 1993). The belief that organisational culture can influence the behaviour of individuals, groups and organisations has provided the thrust behind the interest and research in organisational culture (Hartnell, Ou & Kinicki 2011).

Conceptual frameworks on organisational culture

Different authors have proposed different dimensions for assessing and describing organisational culture (Cameron, Quinn 2005). Hofstede (1998, p.3) described six dimensions: "process versus results oriented, employee versus job oriented, parochial versus professional, open versus closed system, loose versus tight control and normative versus pragmatic." In a process oriented culture, the members of the organisation avoid taking risks and do not exert themselves at work while in a results oriented culture, people take risks and are positive towards changes and challenges. An employee oriented culture is characterised by collective decision making and every member feels appreciated while a job oriented culture is more concerned with the work done than with the welfare of the employees. A parochial culture takes into consideration both the personal welfare and competency of the employees during hiring while a professional culture is only concerned with the professional competency of the employees. An open culture is more hospitable to newcomers compared to a closed culture that is characterised by secrecy. A loose culture is characterised by minimal cost savings and poor time keeping while a tight culture is characterised by cost-consciousness and punctuality. Lastly, in a normative culture rules and procedures are strictly adhered to as these are considered more important than results while in a pragmatic culture more emphasis is placed on meeting the needs of the consumers as opposed to merely following the procedures.

On the other hand, House et al. (2004) built on the dimensions of organisational culture described by other scholars in a scale called the Global Leadership and Organisational Behaviour Effectiveness (GLOBE) scale. This scale outlines nine cultural dimensions that can be used for cultural analysis at both the societal and organisational level (Table 1). These cultural dimensions incorporate both shared values and practices (House et al. 2004). Other dimensions of culture in organisations can be found in the qualitative and quantitative instruments used for assessing organisational culture (Jung et al. 2009). The Organisational Culture Profile is one such widely used instrument that identifies eight dimensions of organisational culture: innovation, aggressiveness, supportiveness, outcome orientation, team orientation, attention to detail, emphasis on rewards and decisiveness (O'Reilly, Chatman & Caldwell 1991).

Table 1: House et al. (2004) Dimensions of organisational culture

DIMENSION	DEFINITION
Power distance	The extent of distribution of power in the organisation which is expected and accepted by its members
Uncertainty avoidance	The degree to which members of a culture fear and avoid unknown circumstances by depending on accepted rules, procedures and practices
Humane orientation	The extent to which members of an organisation encourage and reward acts of kindness, generosity, altruism and fairness
Institutional collectivism	The extent to which practices within the organisation encourage and reward communal action and distribution of resources
In-group collectivism	The level to which members express satisfaction in and loyalty to their organisations
Aggressiveness	The extent to which members of an organisation are competitive and confrontational in their relationships
Gender egalitarianism	The extent to which the organisation promotes gender equality or minimizes differences in roles and opportunities based on gender
Future orientation	The extent to which the members of an organisation or society develop plans and strategies for future investments
Performance orientation	The extent to which the organisation values excellence and rewards improvement in performance

According to Cameron and Quinn (2005), the diversity in the cultural dimensions exists because of the broad scope and numerous definitions of organisational culture. It is therefore not possible to include each and every dimension of culture available in literature when assessing an organisation's culture. For this reason, it is important to use a theoretical framework or model because it provides a theoretical basis that helps to narrow the focus to certain key aspects of culture within the organisation (Cameron, Quinn 2005). Importantly, none of these frameworks can be said to be comprehensive neither is there a right or wrong framework (Cameron, Quinn 2005). Although these frameworks or models have been criticised for oversimplifying such a complex phenomenon as organisational culture, their importance in guiding empirical research and developing theory cannot be undermined (Hatch 1993).

Two theoretical frameworks that are widely used in organisational culture analysis were identified by the primary reviewer from broader reading of literature on organisational culture: the Schein (1984) model and the Competing Values Framework (Quinn, Rohrbaugh 1983, Cameron, Quinn 2005). The Schein (1984) theoretical model outlines three levels of organisational culture (Figure 1). The level refers to the extent to which the observer can see the cultural phenomena (Schein 2006). The first level represents artifacts which are visible and tangible. Artifacts enable the observer to describe how the members construct their work environment and what patterns of behaviour exist among the members. However, the observer cannot easily interpret the meanings attached to the artifacts by the members of the organisation unless the members express the meanings of these artifacts. Examples of artifacts include organisational architecture, processes and structure, employee uniform, behaviour patterns, language used, professional titles, charters and organograms inter alia. The second level represents values and beliefs of how things ought to be done and are manifested in the goals, vision, mission and strategies of the organisation. Values represent principles and norms that the group shares and accepts to be appropriate; they may explain the behaviour patterns observed as artefacts. Values can be inferred from interviews and discussions with members as well as reviews of organisational documents. The third level of analysis comprises of the unseen, taken for granted and unconscious beliefs and assumptions that are considered as the deepest level of culture.

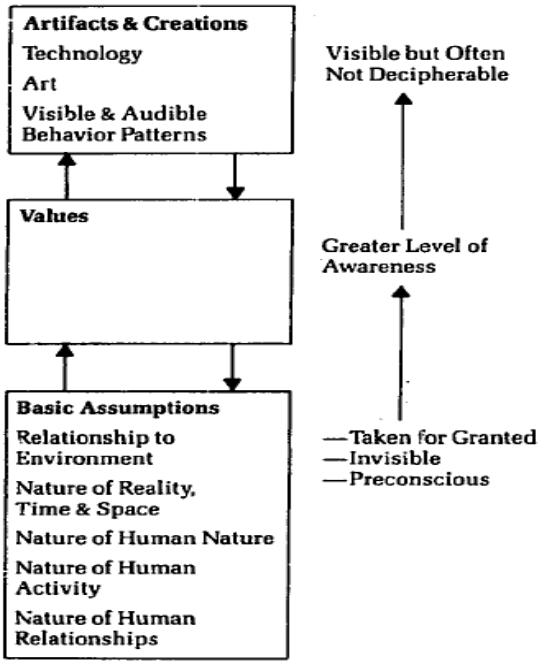

Figure 1: Levels of organisational culture (Schein 1984)

Interestingly, the cultural web framework (Figure 2) also picks up on some of Schein's concepts. This framework was developed for "culture audit by managers" (Johnson 1992, p.30) to enable managers to identify potential barriers to change and to develop appropriate strategies for change. The core of this framework consists of shared values and assumptions which are referred to as the paradigm. The other elements include: stories- which highlight the history, leaders and important events in the organisation; symbols such as language used, logos and titles; power structures- which indicate who holds the power; organisational structures such as organograms and reporting lines; control and reward systems- which monitor and reward activities and behaviour that are considered important; and lastly, rituals and routines- which outline the way things are done within the organisation (Johnson 1992). All these elements are interconnected and they guide the behaviour of the members according to what is valued (Sun 2009). This framework can therefore be used: to identify organisational culture, to highlight the interconnection between culture, politics and structure within the same organisation, and to develop appropriate management strategies for change (Sun 2009).

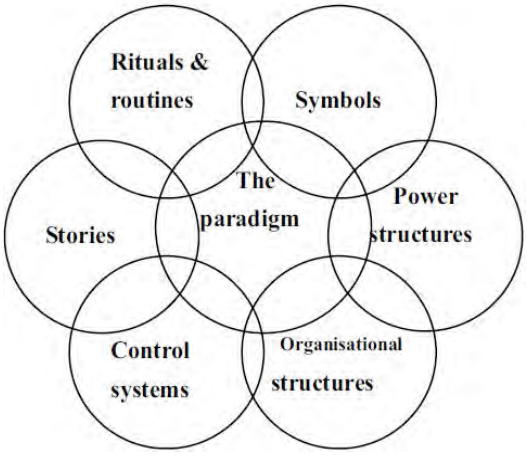

Figure 2: The culture web (Johnson 1992)

The second framework that is widely used is the Competing Values Framework (Figure 3). This framework was developed from indicators of effectiveness that were identified empirically from organisational studies. It characterises organisations along two major dimensions: flexibility versus stability and internal versus external dimensions of organisational effectiveness (Quinn, Rohrbaugh 1983, Cameron, Quinn 2005). A flexible dimension means the organisation is easily adaptable and organic while a stable dimension means the organisation is predictable and rigid or mechanistic. An internally orientated organisation promotes harmony among its members while an externally orientated organisation

promotes competition and interaction with stakeholders outside of the organisation. A cross-section of these dimensions gives rise to four types of culture: clan, adhocracy, market and hierarchical culture (Figure 3) (Quinn, Rohrbaugh 1983, Cameron, Quinn 2005). A clan culture has an internal and flexible orientation characterised by team work and employee participation while an adhocracy culture has an external and flexible focus characterised by creativity, adaptability and innovativeness. A market culture has an external and stable focus characterised by competition and setting of goals while a hierarchical culture has an internal and stable focus characterised by formal rules, procedures and a hierarchical structure (Cameron, Quinn 2005). These four cultures constitute the four quadrants of the Competing Values Framework: "Each quadrant represents basic assumptions, orientations and values- the same elements that comprise organisational culture" (Cameron, Quinn 2005, p.37). This framework is appropriate for diagnosing culture as well as for bringing about change in an organisation as it incorporates various elements of culture such as style of leadership or management, values and strategic plans (Cameron, Quinn 2005).

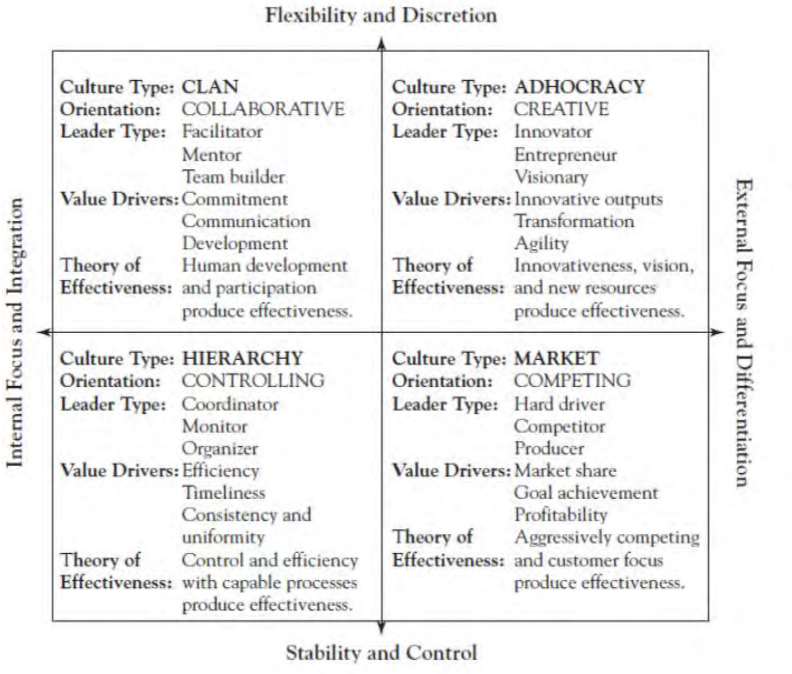

Figure 3: The Competing Values Framework (Cameron, Quinn 2005)

Methodological approaches used in assessing organisational culture

Organisational culture can be assessed either quantitatively or qualitatively (Lim 1995, Hofstede 1998) on what represents a culturally significant unit which can either be the entire organisation, a unit, a department, level of hierarchy or cadres of professionals (Hofstede 1998). A unit is considered culturally significant if it has widely held or homogenous characteristics (Sinclair 1993). The choice of an appropriate unit of analysis can also be determined by the point at which changes are being implemented within the organisation (Cameron, Quinn 2005).

Both quantitative and qualitative methods of organisational culture analysis are complementary to each other as each method has its own strengths and weaknesses (Cooke, Rousseau 1988). Qualitative methods, such as participant observation and ethnography, are suitable for in-depth exploration of culture where there is paucity of information. These methods enable the use of terms provided by the participants themselves to describe the existing culture therefore maintaining credibility. On the other hand, quantitative methods enable researchers to assess, compare and replicate the analysis across different units of analysis within one organisation or across different organisations (Cooke, Rousseau 1988). There are numerous quantitative instruments and they vary in terms of format, length and approach of analysis-which can either be dimensional or typological (Jung et al. 2009). The choice of instrument depends on the aims and objectives of the analysis, the concept and dimensions of organisational culture that the researcher is interested in as well accessibility of the instruments to the researcher (Scott et al. 2003). An instrument that has a dimensional approach assesses the existence and strength of cultural dimensions in a setting of interest using a predefined list of dimensions or characteristics of organisational culture. In contrast, an instrument that has a typological approach not only identifies the dimensions of an organisation's culture but also classifies the dominant dimensions or characteristics into predefined archetypes that can either be descriptive or based on a framework (Jung et al. 2009) such as the Competing Vales Framework (Quinn, Rohrbaugh 1983, Cameron, Quinn 2005). Various authors have, however, criticized the a priori classification of dimensions of organisational culture in quantitative instruments for distorting the true dimensions of organisational culture within a given institution. Subsequently, the use of mixed methods (combination of both quantitative and qualitative methods) is increasingly being considered appropriate for studying culture within organisations (Bellot 2011).

Scoping review

This methodology of this scoping review was informed by the Arksey and O'Malley (2005) framework which has five stages: identification of the research question, identification of relevant literature, selection of studies according to an inclusion and exclusion criteria, charting of the data using a template, and lastly, summarizing and reporting of the study results. This review was guided by the following question: What is the scope of literature on organisational culture within the health sector in LMICs? The primary objective of this scoping review is to identify and map the main concepts and sources (Mays, Roberts & Popay 2001, Arksey, O'Malley 2005) of organisational culture in the health sector in LMICs by describing what that work is and how the authors define organisational culture in order to support the more focussed and detailed analysis of the interpretive qualitative synthesis presented as part C of this dissertation.

Literature search strategy

The key search terms and the databases that were used to retrieve literature for this review are presented in Figure 4. After running the search strategy through the databases, the primary reviewer checked the eligibility of the titles and abstracts of the retrieved literature against the inclusion and exclusion criteria in order to identify articles that were relevant to the review. Numerous articles were excluded at this point because they covered: non-health sectors such as the military, construction, airline, banking, accounting and education; book chapters and opinion pieces; and High Income Countries (HICs). Articles that were not published in English and those that did not have full access were also excluded. The potentially relevant articles were then downloaded into a data manager, RefWorks, for easier management and removal of duplicates. On full texting reading, articles that did not define the use of the term organisational culture were excluded due to difficulties of inferring the meaning of organisational culture as used by the authors. Nevertheless, the restriction of the review articles to only those that define the use of the term organisational culture is acknowledged as limitation of this scoping review. We therefore only included articles with a LMICs focus, articles with full access, articles that defined the use of the term organisational culture and articles published in English. In the end, we retrieved twenty three articles for this scoping review.

Organi?ational Culture OR institutional culture

AND

Health sector or health system

AND

Developing Countr* OR Africa OR Asia OR Latin America OR Caribbean OR Pacific OR Middle East OR East Europe (Gilson, Raphaely 2008) OR transitional countr* OR low income countr* OR middle income countr*OR LMIC OR LMICs

DATABASES: PubMed; AFRICA-WIDE, CINAHL, ECONLIT, PsycINFO and SOCINDEX WITH FULL TEXT VIA EBSCOHOST; EMERALD AND SCOPUS

DATE LIMITERS: 01012000- 31122015

Figure 4: key search terms and databases

Characteristics of the retrieved literature

The majority of the papers were published in the Leadership in Health Services Journal. Table 2 shows the diversity of the journals in which the retrieved literature were published.

Table 2: Journals of Publication

TYPE OF JOURNAL	NUMBER OF ARTICLES
Leadership in Health Services	5
Journal of Health Management	2
Journal of Health Organization and Management	2
International Journal of Health Care Quality Assurance	2
BMC Health Services Research	1
British Journal of Health Psychology	1
Career Development International	1
Health Care Management Review	1
Iranian Journal of Nursing and Midwifery Research	1
Journal of Nursing Scholarship	1
Managing Service Quality: An International Journal	1
Nordic Journal of African Studies	1
Nurse Education Today	1
Public Administration and Development	1
South African Family Practice	1
The TQM Magazine	1

Mapping the retrieved literature

Table 3 provides a summary of the retrieved literature which are grouped according to: the title, name of author, publication year and type of Journal, geographical setting(s) and health sector or health system issue around which organisational culture was discussed. This table shows the varied geographical breadth covered in the retrieved literature. Out of the twenty three articles, only three covered countries from the African region compared to the other LMICs regions, whilst Greece was the most frequent location for these studies with four articles. Six broad topics of focus on organisational culture in the health sector were considered in these papers (Table 3), with some papers considering more than one topic. These topics were identified inductively from the article's research question, study objectives or findings. The most frequently considered were organisational culture and health facilities (n=11) and organisational culture and quality of health services and quality of management (n=10). Although not identified in the table, the majority of papers (seventeen or 74%) used cross-sectional quantitative methods to study organisational culture. Of the remaining six studies, two applied a case study approach (Kantabutra 2011, Trong Tuan 2012) while four applied qualitative methods (Ozturk, Swiss 2008, Jaakko et al. 2010, Farahani et al. 2013, Todorova et al. 2014). Lastly, 83% (or nineteen) of the articles involved studies carried out in Public health sector while three articles involved private hospitals (Rabbani et al. 2009, Kantabutra 2011, Trong Tuan 2012) and the remaining study involved both public and private hospitals (Seren, Baykal 2007).

Table 3: Map of the retrieved literature

Title of article, Name of author, Publication year and Type of Journal	Geographical setting	ORGANISATIONAL CULTURE AND					
		Health facilities	Health Information Systems	Health Sector Reforms	Human Resource for Health	Leadership /Governance	Quality of health services and quality management
1. Organizational culture based on the example of an Estonian hospital (Saame, Reino & Vadi 2011) *Journal of Health Organization and Management.*	Estonia	X					X
2. Culture and quality care perceptions in a Pakistani hospital (Rabbani et al. 2009) *International Journal of Health Care Quality Assurance.*	Pakistan	X					X
3. Identifying organizational culture and subcultures within Greek public hospitals (Bellou 2008) *Journal of Health Organization and Management.*	Greece	X					X
4. The Influence of Organizational Culture on Information Use in Decision Making within Government Health Services in Rural Burkina Faso (Jaakko et al. 2010) *Nordic Journal of African Studies.*	Burkina Faso		X				
5. Analysis of the perception of institutional culture for health sector reform in Nigeria (Olukoga et al. 2010) *Leadership in Health Services.*	Nigeria			X			
6. The role of organizational culture on practicing quality improvement in Jordanian public hospitals (Ismail Ababaneh 2010) *Leadership in Health Services*	Jordan						X
7. The impact of organizational culture on the successful implementation of total quality Management (Ali Mohammad 2006) *The TQM Magazine*	Iran						X

Title of article, Name of author, Publication year and Type of Journal	Geographical setting	ORGANISATIONAL CULTURE AND					
		Health facilities	Health Information Systems	Health Sector Reforms	Human Resource for Health	Leadership /Governance	Quality of health services and quality management
8. Organizational culture as a moderator of the personality managerial competency relationship: A study of primary care managers in Southern Thailand (Chuttipattana, Shamsudin 2011) *Leadership in Health Services.*	Thailand					X	
9. Do types of organizational culture matter in nurse job satisfaction and turnover intention?(San Park, Hyun Kim 2009) *Leadership in Health Services.*	Korea				X		
10. Organizational culture as a predictor of job satisfaction: the role of gender and age (Bellou 2010) *Career Development International.*	Greece				X		
11. Sustainable leadership in a Thai healthcare services provider (Kantabutra 2011) *International Journal of Health Care Quality Assurance.*	Thailand					X	
12. From unbalanced to balanced: performance measures in a Vietnamese hospital (Trong Tuan 2012) *Leadership in Health Services.*	Vietnam						X
13. Factors influencing the patient education: A qualitative research (Farahani et al. 2013) *Iranian Journal of Nursing and Midwifery Research.*	Iran						X
14. Predictors of attitude and intention to use knowledge management system among Korean nurses (Yun 2013) *Nurse Education Today.*	Korea		X				
15. Organizational culture in the primary healthcare setting of Cyprus (Zachariadou, Zannetos & Pavlakis 2013) *BMC Health Services Research.*	Cyprus	X					

Title of article, Name of author, Publication year and Type of Journal	Geographical setting	ORGANISATIONAL CULTURE AND					
		Health facilities	Health Information Systems	Health Sector Reforms	Human Resource for Health	Leadership /Governance	Quality of health services and quality management
16. Organizational hierarchies in Bulgarian hospitals and perceptions of justice (Todorova et al. 2014) *British Journal of Health Psychology.*	Iran	X		X	X		
17. Predictors of the level of personal involvement in an organization: A study of Slovene hospitals (Savic', Pagon & Robida 2007) *Health Care Management Review.*	Slovenia				X		
18. Organizational Culture and Individual Values in Greek Public Hospitals: A Competing Values Approach (Kapetaneas et al. 2015) *Journal of Health Management.*	Greece	X			X		
19. A Study of Organizational Values in Government Run Primary Health Centres in India (Purohit, Patel & Purohit 2014) *Journal of Health Management.*	India	X					
20. An assessment of organisational values, culture and performance in Cape Town's primary healthcare services (Mash et al. 2013) *South African Family Practice.*	South Africa	X					X
21. Achieving long-term customer satisfaction through organizational culture: Evidence from the health care sector (Bellou 2007) *Managing Service Quality: An International Journal.*	Greece	X					X
22. Relationships Between Change and Organizational Culture in Hospitals (Seren, Baykal 2007) *Journal of Nursing Scholarship.*	Turkey	X					
23. Implementing management tools in Turkish public hospitals: the impact of culture, politics and role status (Ozturk, Swiss 2008) *Public Administration and Development.*	Turkey	X					X

Emerging themes on organisational culture in the health sector in LMICs.

The dominant themes were identified inductively from the article's research question or the study objectives. Where the focus of the study was not clearly stated, judgements of the main issues were made from the discussion and findings sections of the articles. The primary reviewer then grouped similar codes into broad categories or themes to support the mapping and description of the literature in this field. Some articles addressed multiple issues leading to overlaps in the themes identified.

Organisational culture in health facilities

Identification of organisational culture in health facilities was done for various reasons: to explore the relationship between organisational culture and hospital performance in Estonia (Saame, Reino & Vadi 2011); to identify the perceptions of health workers on the prevailing type of organisational culture and values in Greece, India and South Africa (Bellou 2008, Purohit, Patel & Purohit 2014, Mash et al. 2013); to identify the underlying culture or subcultures within a hospital setting in Greece (Bellou 2008); to assess the congruence between the values held within health facilities and those espoused by the Department of Health in South Africa (Mash et al. 2013); to assess the prevailing organisational culture prior to the implementation of a new scheme of health care that seeks to strengthen primary health care services in Cyprus (Zachariadou, Zannetos & Pavlakis 2013); to assess the fit between an individual's values and the values upheld in the organisation's culture in Greece and South Africa (Kapetaneas et al. 2015, Mash et al. 2013) and lastly, to compare organisational culture and staff attitudes towards change in public and private hospitals (Seren, Baykal 2007).

Organisational culture and quality of care or management of quality

In the reviewed literature, the relationship between organisational culture and perceptions of quality of care were investigated at hospital level for example in Estonia and Greece (Saame, Reino & Vadi 2011, Ismail Ababaneh 2010) and at unit or departmental levels within hospitals such as in Pakistan (Rabbani et al. 2009). Organisational culture was shown to influence dimensions of quality of care such as patient education (Farahani et al. 2013) and patient satisfaction (Saame, Reino & Vadi 2011, Bellou 2007). In a Pakistani hospital, open and developmental organisational cultures were associated with positive perceptions of quality of service while hierarchical organisational culture was associated with poor perceptions of quality of care (Rabbani et al. 2009). However, hierarchical and Innovative organisational cultures in the public hospitals of Jordan enhanced practices towards improving quality of care (Ismail Ababaneh 2010).

Organisational culture was shown to influence the implementation of quality improvement initiatives and quality management systems. In this regard, organisational culture was identified as a potential barrier to the implementation of the balanced score care system in Vietnam (Trong Tuan 2012) and total quality management in Iran (Ali Mohammad 2006). In Turkey, organisational culture characterised by hierarchy and low orientation towards collectivism and performance challenged the implementation of management reforms such as client feedback reports in the public hospitals (Ozturk, Swiss 2008). Rabbani et al. (2009) and Trong Tuan (2012) consider organisational culture analysis as important prior to the implementation of quality improvement initiatives so that appropriate strategies can be put in place to enhance the type of culture that supports their implementation.

Organisational culture and human resources for health

The type of culture and the dimensions of culture that are valued within a health care organisation affect the work environment. This has been shown to affect health care workers': sense of job fulfilment and satisfaction in Korean and Greek public hospitals (San Park, Hyun Kim 2009, Bellou 2010); intention to leave employment in Korea (San Park, Hyun Kim 2009); and perception of well-being and justice in Bulgarian hospitals (Todorova et al. 2014). Organisational culture was also shown to influence participation and involvement of health care workers in hospitals and in practice teams for provision of health services in Slovenia (Savic', Pagon & Robida 2007).

Organisational culture and leadership/governance

Sustainable leadership in a private health care organisation in Thailand was shown to depend on dimensions of organisational culture such as teamwork, shared vision, continuous professional development characterised by internal staff promotion and collaboration with stakeholders including the community and the Ministry of Health. This private health care facility was also shown to value innovations which enabled it to pioneer a multidisciplinary team approach towards the management of diabetes which further maintained its leadership in the management of diabetes across Thailand (Kantabutra 2011). Another study done in Thailand lent support to the influence of organisational culture on the relationship between the personality traits of primary health care managers and their competency as managers. For example, it was found that where the prevailing organisational culture supported risk taking, the managers tended to be more patient and displayed collaborative competency (Chuttipattana, Shamsudin 2011).

Organisational culture and health information systems

The relationship between organisational culture and health information system is considered important particularly with respect to health information use for decision making. Dimensions of organisational culture such as orientation towards performance, distribution of power, cohesion and collectivism and gender equality influenced the use of information obtained from health information systems in decision making in Burkina Faso (Jaakko et al. 2010). Organisational culture has also been shown to influence nurses' ability to adopt and share knowledge derived from innovations in health information systems in Korea (Yun 2013).

Organisational culture and health sector reforms

In Nigeria, Olukoga et al. (2010) identified leadership and character as two dimensions of organisational culture that influenced the implementation of comprehensive health sector reforms in four district hospitals. Character was used in this study to refer to the unique identity of the organisation manifested by symbols, vision and accomplishments of organisational heroes. On the other hand, health sector reforms were shown to influence or to have an impact on organisational culture within hospitals. In this regard, the introduction of health sector reforms which included general practitioner models in Bulgaria were perceived by health workers to worsen the already entrenched hierarchies in the hospitals (Todorova et al. 2014).

Discussion

In the retrieved literature, various authors conceptualised organisational culture as shared norms, values, attitudes and beliefs that influence the behaviour of members within the organisation (Seren, Baykal 2007, Bellou 2008, Rabbani et al. 2009, Olukoga et al. 2010, Bellou 2010, Kantabutra 2011, Yun 2013, Purohit, Patel & Purohit 2014, Ali Mohammad 2006, San Park, Hyun Kim 2009, Saame, Reino & Vadi 2011, Kapetaneas et al. 2015). Other authors qualified this conceptualisation of organisational culture by describing it in the following ways: culture as acquired over time and necessary for the survival and sustainability of an organisation (Saame, Reino & Vadi 2011), culture as a concept that is created relationally by people through language and a continuous process of interactions and deliberations (Todorova et al. 2014), culture as broad and deep due to its connections to other aspects of the organisation such as politics and structure (Saame, Reino & Vadi 2011), culture as essential for the comprehension of the functioning of the organisation by its members (Bellou 2010), culture as a concept that can be partially manipulated through various managerial interventions (Bellou 2008) and, culture as

the informal and unwritten standards within the organisation (Olukoga et al. 2010). These diverse qualifications highlight the broad and inclusive nature of organisational culture.

Of the twenty three articles, ten assessed and analysed the findings on organisational culture using a typological approach. The cultural typologies used include: the Competing Values Framework- clan, adhocracy, market and hierarchical- in eight of these studies (Savic', Pagon & Robida 2007, San Park, Hyun Kim 2009, Chuttipattana, Shamsudin 2011, Saame, Reino & Vadi 2011, Trong Tuan 2012, Yun 2013, Kapetaneas et al. 2015, Rabbani et al. 2009); the Wallach (1983) cultural typology- supportive, bureaucratic and innovative cultures- in a study on culture and quality improvement in Jordan (Ismail Ababaneh 2010) and lastly, the Pheysey (1993) cultural typology -role, power, supportive and competitive cultures- in a study on the attitude of health workers towards change in Turkey (Seren, Baykal 2007). The remaining thirteen articles used a dimensional approach to assess organisational culture (Ali Mohammad 2006, Bellou 2007, Bellou 2008, Ozturk, Swiss 2008, Olukoga et al. 2010, Bellou 2010, Jaakko et al. 2010, Kantabutra 2011, Mash et al. 2013, Farahani et al. 2013, Zachariadou, Zannetos & Pavlakis 2013, Purohit, Patel & Purohit 2014, Kapetaneas et al. 2015).

The authors in the reviewed articles identified dimensions of organisational culture either deductively using quantitative organisational culture tools or inductively from qualitative studies. The choice of quantitative tools or instruments used was based on validity, availability, objectives of the study and wide application across sectors as indicated by the authors of the articles. For example, Bellou (2007) chose the Organisational Culture Profile instrument because it measures dimensions such as team orientation, outcome orientation, supportiveness and attention to detail that were relevant to the main objectives of her study-customer satisfaction and quality of services. Secondly, Saame, Reino & Vadi (2011) used the Organisational Values Questionnaire to assess patient satisfaction because it is developed from the Competing Values Framework- which is considered valid and reliable as it is derived from empirical indicators of effectiveness identified across different organisations. Purohit, Patel & Purohit (2014) employed the OCTAPACE “Openness, Confrontation, Trust, Authenticity, Pro-action, Autonomy, Collaboration and Experimentation” (Purohit, Patel & Purohit 2014, p.303) instrument because of its high validity, established reliability and wide use across various sectors such as business and tourism. Lastly, Zachariadou, Zannetos & Pavlakis (2013) used the Organisational Culture Profile tool because of its high internal consistency and availability in Greek language which made it appropriate for use in Cyprus where Greek is an official language.

The specific dimensions of organisational culture explored in the retrieved literature were multiple and varied. In order to organise and summarise these dimensions across studies, the primary reviewer drew on the Competing Values Framework and complemented it with House et al. (2004) dimensions of organisational culture since no framework is complete on its own (Cameron, Quinn 2005). The Competing Values Framework has been used in numerous studies in fields such as management, accounting and health and it also has proven validity and reliability based on its wide use across different organisations and sectors (Cameron, Quinn 2005). Although all the organisations express the different types of culture to different extents, hierarchical culture was most commonly observed across these studies. The summary below provides the specific examples of the different types of culture based on the Competing Values Framework.

The hierarchy culture

This culture has an internal focus and maintains stability and control of the organisation (Cameron, Quinn 2005). The retrieved literature points to hierarchical or bureaucratic culture at different units of analysis such as the hospital and, professional and management levels.

Hierarchical or bureaucratic hospitals were characterised by: order, stability and procedures in the public hospitals of Estonia (Saame, Reino & Vadi 2011) and Iran (Savic', Pagon & Robida 2007); centralisation of power in public hospitals in Istanbul (Seren, Baykal 2007); orientation towards rules in public hospitals in Greece (Bellou 2010); compliance with quality improvement procedures and rules in Jordanian Public hospitals (Ismail Ababaneh 2010); availability of procedural manuals to govern decision making in Burkina Faso's district health system (Jaakko et al. 2010); predetermined expectations, plans and protocols for employee performance in a Vietnamese private hospital (Trong Tuan 2012); top-down decision making and chains of command in Korean public hospitals (San Park, Hyun Kim 2009) and South Africa's primary health care facilities (Mash et al. 2013).

Hierarchical culture at management level was characterised by large power distance between health facilities managers and the district management team in Burkina Faso (Jaakko et al. 2010) and between health care professionals and management in public hospitals in Bulgaria (Todorova et al. 2014), India (Purohit, Patel & Purohit 2014), Turkey (Ozturk, Swiss 2008); and, in Isfahan private university hospitals in Iran (Ali Mohammad 2006). In Burkina Faso and India, the power distance was also characterised by restricted autonomy in decision making such that approval from higher authorities had to be obtained before any decision was made (Jaakko et al. 2010, Purohit, Patel & Purohit 2014).

Hierarchical culture at the professional level was seen between physicians and nurses leading to a culture orientated towards physicians in Iran (Farahani et al. 2013).

Clan culture

Dimensions that characterise the clan culture in the retrieved literature include: a small power distance between health facility managers and the health workers in Burkina Faso demonstrated through inclusive decision making and active feedback mechanisms, team work and harmonious interpersonal relationships (Jaakko et al. 2010); respect towards the rights of other employees in Greek public hospitals (Bellou 2010); trust, respect and loyalty between the managers and employees in a private health care facility in Thailand (Kantabutra 2011). Indeed, the core values of this private hospital adequately capture the dimensions of a clan culture "ETHICS" for **"**Excellence, Teamwork, Hospitality, Integrity, Continuous improvement and Social responsibility" (Kantabutra 2011, p.77). Other dimensions that are consistent with the clan culture include: staff and interdepartmental cooperation and mutual confidence in each other's skills as seen in two public hospitals in Korea (San Park, Hyun Kim 2009); and high levels of in-group collectivism characterised by commitment and solidarity among nurses in Turkish public hospitals (Ozturk, Swiss 2008). However, another study that compared culture between four private and four public hospitals in Turkey found that the private hospitals showed a more collaborative culture than the public hospitals (Seren, Baykal 2007). Team work and cooperation were also found to be low in Greek public hospitals (Bellou 2008).

Adhocracy

Dimensions consistent with this culture such as creativity and risk taking were found to be low in Iran (Ali Mohammad 2006) and in Greek public hospitals (Bellou 2010). Other dimensions of adhocracy culture such as innovation and pioneering of strategies to improve quality of health services formed important aspects of the organisational culture in a private hospital in Thailand (Kantabutra 2011). Capacity to innovate with respect to the comprehensive health sector reform was also regarded as a key aspect of organisational culture in four public hospitals in Nigeria (Olukoga et al. 2010).

Market culture

Competition, aggression and attention to detail are features of market culture that were valued by managers of Greek public hospitals in the face of competition from the private health care sector (Bellou 2008). Other dimensions of the market culture such as decisiveness and outcome orientation were found

to be low in the prevailing organisational culture of twenty Greek hospitals (Bellou 2007). In Turkey, the public hospitals had a low orientation towards results and therefore rewarded employees based on their seniority rather than on their performance or outcomes (Ozturk, Swiss 2008). In Korea, the hospitals were characterised by a focus on achievement of organisational goals and rewards which are characteristic of the market culture (San Park, Hyun Kim 2009).

Conclusion

This scoping review and mapping exercise provides empirical evidence of organisational culture in the health sector with regards to: quality of care and quality management, human resources for health, health facilities, health information systems, leadership / governance, and health sector reforms. This review also draws attention to the following: the numerous definitions of organisational culture that are available in the literature, the common aspects of these diverse definitions and, the multiple quantitative instruments used in organisational culture analysis and the reasons for the choice of those instruments as indicated by the authors themselves. An appropriate conceptualisation of organisational culture and choice of theoretical framework are essential when conducting organisational culture analysis. The different dimensions of organisational culture highlighted in the retrieved literature were, therefore, mapped into four types of culture based on the Competing Values Framework for ease of organisation and comparison across studies. Importantly, none of the organisations expressed one pure type of culture. Instead, all the organisations expressed the different types of culture to different extents. Nevertheless, hierarchical culture was most commonly observed across these studies particularly in the public sector. Drawing on this scoping review, the primary reviewer conceptualizes organisational culture as *a system of values and practices: that are socially or relationally constructed and shared by actors within the health system; that influence their relationships, attitudes and behaviour towards changes in the health system; and, can be manipulated or influenced, at least in part, through managerial strategies to enable achievement of the desired organisational goals.* This conceptualisation will guide the interpretive qualitative synthesis in the next section.

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PART C: JOURNAL ARTICLE MANUSCRIPT

TARGETED JOURNAL: HEALTH POLICY AND PLANNING

Influence of organisational culture on the implementation of health sector reforms in Low and Middle Income Countries: a qualitative interpretive review

Rahab Mbau[1] and Lucy Gilson[2]

Abstract

Health systems, particularly in Low and Middle Income Countries (LMICs), have been characterised by poor access, poor performance, inefficient use and inequitable distribution of resources. To improve health system efficiency, equity and effectiveness, the World Development Report of 1993 proposed system wide changes known as Health Sector Reforms that included decentralisation, health system financing through user fees and social health insurance, pay for performance, public- private partnerships, contracting out of health services and comprehensive primary health care. These reforms had a dominant focus on the structural aspects of the health system. Various authors have, however, indicated that these reforms did not lead to the anticipated improvements. They offer as one plausible explanation for this, their limited consideration of the software aspects of the health system. Organisational culture, which forms an aspect of the software, has been identified as one possible influence over the implementation of health sector reforms but has not previously been fully investigated. This qualitative interpretive review, therefore, systematically identifies and reviews already published empirical literature on health sector reforms in LMICs with the objective of identifying and synthesizing aspects of organisational culture and how they influence the implementation of the reforms. Data extraction was done using thematic synthesis. In pursuing its main objective, this review indicates the potential influence of dimensions of organisational culture such as power distance, uncertainty avoidance, in-group and institutional collectivism, mediated through organisational practices, over the implementation of health sector reforms. However, the review also highlights the dearth of empirical literature around organisational culture and therefore its findings can only be tentative. There is need for health policy makers and health system researchers to conduct further analysis of organisational culture and change within the health system.

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KEY WORDS: organisational culture, health sector reforms, implementation, low and middle income countries, qualitative interpretive synthesis, thematic synthesis.

KEY MESSAGES

- Qualitative interpretive synthesis of existing empirical literature on implementation of health sector reforms generates insights that are relevant to health policy and health systems and, implementation research.

- The findings tentatively demonstrate that dimensions of organisational culture such as power distance, uncertainty avoidance, in-group and institutional collectivism can influence the implementation of health sector reforms through their influence on organisational practices such as management styles, participation in decision making, commitment and communication.

- There is need for more empirical studies on organisational culture in the health sector and its implications for policy or reform implementation.

Introduction

Health systems, particularly in Low and Middle Income Countries (LMICs), have been characterized by poor access, poor performance, inefficient use and inequitable distribution of resources (Cassels 1995, Grindle 1997, Berman, Bossert 2000). To improve health system efficiency, equity and effectiveness, the World Bank proposed system wide changes known as Health Sector Reforms in the World Development Report of 1993 (World Bank 1993). The proposed health sector reforms were decentralisation, user fees and social health insurance, pay for performance, public- private partnerships, contracting out of health services and comprehensive primary health care (World Bank 1993, Cassels 1995, Gilson, Mills 1995, Bennett, Mills & Russell 2001). These reforms largely addressed the hardware elements of the health system (Blaauw et al. 2003) - that is, the tangible and functional aspects of the health system (Sheikh et al. 2011) - that make up the building blocks of the health system: service delivery, health care financing, health workforce, leadership and governance, information and, medical products, vaccines and technology (World Health Organization 2007).

The Health sector reforms that were proposed by the World Bank in 1993 were understood as "fundamental, purposeful and sustained changes" (Berman 1995, p.13) that would define and set priorities and policies as well as transform the organisations through which the policies would be implemented (Cassels 1995). These reforms were expected to result in positive and lasting changes in the efficiency, equity and effectiveness of health sector services worldwide (Berman 1995) with the associated actions expected to occur somehow automatically as result of rational analysis (Reich 1995). However, the changes resulting from these reforms were varied (Berman, Bossert 2000), with authors such as Blaauw et al. (2003) suggesting that the gains achieved were limited. While the reforms primarily addressed the hardware or structural elements of the health system, they were also criticised for ignoring the potential influence of the health system software on the reforms. Indeed, this inattention to system software has been cited by authors from both High Income Countries (HICs) and LMICs as a plausible explanation for the failure of the reforms (Davies 2002, Blaauw et al. 2003, Scott et al. 2003b). The software elements of the health system refer to the intangible aspects that govern functions and relationships within the health system such as ideas, values, interests, power and norms (Sheikh et al. 2011) as well as organisational culture (Blaauw et al. 2003). Organisational culture is specifically noted as having the potential to shape the way health sector reforms are put into action (Davies 2002).

Since the early 2000s, organisational culture has been a key theme of debate alongside structural reforms in the health sector within HICs such as the United States of America and the United Kingdom. Policy

makers and managers in these countries realise that structural reforms on their own cannot lead to the desired changes within the health systems (Davies, Nutley & Mannion 2000, Davies 2002, Department of Health (DoH) 2001, Scott et al. 2003a, Scott et al. 2003b). Organisational culture -a concept adopted from the field of anthropology- is based on a view of organisations as social systems characterised by social processes, behaviours and structures (Smircich 1983, Allaire, Firsirotu 1984). There are numerous definitions of organisational culture ranging from simple ones such as "the way things are done around here" (Davies, Nutley & Mannion 2000, p.112) to more complex ones such as "a pattern of shared basic assumptions that was learned by a group as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (Schein 1984, p.3). Nevertheless, commonalities across the numerous definitions indicate that organisational culture comprises of shared social constructs such as beliefs, meanings, values, behaviour and norms (Schein 1984, Hofstede, Hofstede & Minkov 1997, Davies, Nutley & Mannion 2000, Konteh, Mannion & Davies 2008). Organisational culture therefore provides a lens through which the internal dimensions of the organisation (Gilson, Erasmus 2004) can be understood by its members, as well as by external stakeholders (Konteh, Mannion & Davies 2008).

The last decade has also witnessed increasing global recognition of the need for implementation research to ascertain whether reforms or interventions within the health system lead to the desired goals. Implementation research aims at generating an understanding of what happens during the process of putting policies or reforms into action (Sanders, Haines 2006). While the World Development Report of 1993 provided prescriptions for governments on what to do to improve health system performance, it neglected the potential challenges that the reforms would face during implementation (Reich 1995). In addition, more emphasis has been placed on analysing the technical aspects of the reforms than on analysing the political and organisational aspects that are also necessary to the feasibility of the reforms (Reich 1995). However, organisational culture research enjoys little prominence in LMICs as highlighted by Gilson and Erasmus (2004), whilst the value of implementation research has only recently come to be acknowledged (Sanders, Haines 2006).

In view of the potential importance of organisational culture as an influence on the implementation of health sector reforms in LMICs, this qualitative synthesis was undertaken to take stock of the current knowledge base, to draw relevant research, and if possible, policy implications. In this aim it was in line with other, recent qualitative synthesis work (special edition of *Health Policy and Planning* 29(3).

December 2014). It reviews existing empirical literature from LMICs with the aim to identify, interpret and synthesise evidence on organisational culture and its influence on the implementation of these reforms. Drawing on an earlier scoping review of relevant literature (see part B), organisational culture is conceptualised in this synthesis as *a system of values and practices: that are socially or relationally constructed and shared by actors within the health system; that influence their relationships, attitudes and behaviour towards changes in the health system; and, can be manipulated or influenced, at least in part, through managerial strategies to enable achievement of the desired organisational goals.* In this regard, practices refer to how things are done while values refer to judgements of how things should be done (House et al. 2004), and an organisation refers to a structured and formalized entity made up of a group of people who have come together for a common purpose (Lusthaus 2002).

Methods

This review[3] employed an interpretive qualitative synthesis approach to interpret and synthesise findings from all forms of empirical studies whether qualitative, quantitative or mixed methods. Interpretive qualitative synthesis is founded on the principles of systematic review (Bearman, Dawson 2013, Dixon-Woods et al. 2005) and is useful in developing new concepts and meanings from the collated work (Dixon-Woods et al. 2005, Dixon-Woods et al. 2006).

Literature search

A systematic electronic database search was carried out using key search terms that were built from the main concepts in the review question and strengthened by the literature identified during the scoping study as well as consultations and inputs from the Principal Investigator, Professor Lucy Gilson of the University of Cape Town- an experienced health policy and health systems researcher. The key search terms are outlined in Figure 1. The development of the search string and the subsequent literature search involved an iterative process that was done under the skillful assistance of a Health Science Librarian from the University of Cape Town. The literature search was carried out independently in each of the eight databases that were considered relevant to the review due to their focus and accessibility to the primary reviewer. Multiple databases were included to minimise selection bias (Higgins, Green 2008). The databases searched include: PubMed; Africa-Wide Information, Cumulative Index of Nursing and Allied Health Literature (CINAHL), Econlit, PsycINFO, SocINDEX with full text via EBSCOHost, Emerald and Scopus.

[3] Ethical approval for this review was obtained from the Human Research Ethics Committee, Faculty of Health Science University of Cape Town.

The initial search was conducted in PubMed and then translated to the other databases according to their appropriate controlled vocabulary and standardised terms of indexing (Higgins, Green 2008). In order to be as comprehensive as possible, the initial search in PubMed was carried out using country specific names according to the 2012 LMICs filters developed by the Norwegian satellite of the Cochrane effective practice and organisation of care group (Cochrane Effective Practice and Organisation of Care (EPOC) Review Group 2015). A comprehensive account of the literature search strategy used for each database, the dates of the last search and the publication limiters used is provided in Appendix 2 of the protocol (see Part A).

Organi?ational Culture OR institutional culture

AND

health sector reform* OR Health Care Reform* OR Health Polic* OR "health system strengthening interventions" OR universal health coverage OR "user fee removal" OR “user fees” OR "pay for performance" OR “performance based financing” OR health sector strateg* OR "health system reform" OR "health reform" OR decentralization OR decentralisation OR politics OR contracting out OR outsourc* OR public private partnerships OR comprehensive primary health care

AND

Implement*

AND

Developing Countr* OR Africa OR Asia OR Latin America OR Caribbean OR Pacific OR Middle East OR East Europe(Gilson, Raphaely 2008) OR transitional countr* OR low income countr* OR middle income countr* OR LMIC OR LMICs

Figure 1: Key search terms

Inclusion and exclusion of articles

The potentially relevant articles were identified from each of the databases after first removing the articles that were obviously not related to the health sector and those that had HICs focus. These articles were then downloaded into a data reference manager, RefWorks, for easier data management and removal of duplicates (Higgins, Green 2008). Following the removal of the duplicates, the titles and abstracts of the remaining articles were reviewed against the inclusion and exclusion criteria. The criteria for inclusion were: articles published in English, articles with full access, articles with a focus on LMICs,

articles whose titles and abstracts contained the key words and were relevant to the review question, articles published after the year 2000 (a period when organisational formed an important discourse alongside health sector reforms (Davies 2002)) and articles with an empirical focus including qualitative, quantitative and mixed methods. The following articles were excluded: articles not published in the English language due to difficulties in translation as well as time constraints, articles without full access through the University of Cape Town libraries, articles from HICs, articles that were not relevant to the review question, articles published before the year 2000 and articles without an empirical focus.

Quality appraisal

All the articles that met the inclusion criteria were included in this review irrespective of their quality. This approach recognised the limited number of articles retrieved and that, following Cochrane Qualitative Research Methods Group (Hannes 2011), the value of each study may only become apparent in the synthesis rather than at the point of appraisal.

Extraction and synthesis of data

Data were extracted from all the sections of the articles given that different reporting styles across academic disciplines means that relevant data may be presented in sections other than the findings section alone (Sandelowski, Barroso 2002). The process was informed by the thematic synthesis approach which involves coding of the text line-by-line followed by grouping of similar codes to form descriptive themes and lastly, the inception of analytical themes (Thomas, Harden 2008). The primary reviewer read each of the articles line by line and identified and coded the texts, quotes and authorial judgments (that is, the author's own interpretation and judgement of the data) that were relevant to organisational culture and the review question. Following Gilson, Schneider & Orgill (2014), authorial judgements were included as data because they offer more insight into the data presented in the studies. With further reading and rereading of the papers, the reviewer checked for the consistency between the texts and codes and also developed new codes where necessary. Similar codes were then merged to form descriptive themes related to values and practices that were inductively identified in the articles and these are presented in the findings section. The House et al. (2004) dimensions of organisational culture (Table 1) were used to, deductively, interpret and synthesise the findings of the review. This framework provided a valid lens to support the interpretation and synthesis of the findings as it has been piloted and tested across different sectors (telecommunication, finance and food processing sectors) in both developed and developing countries (House et al. 2004).

Table 1: House et al. (2004) Dimensions of organisational culture

DIMENSION	DEFINITION
Power distance:	Extent of distribution and concentration of power across the organisation
Institutional collectivism:	Extent to which the organisation encourages and rewards communal action and sharing of resources
In-group collectivism:	Level of pride, satisfaction and loyalty shown by members towards their organisation
Uncertainty avoidance:	Degree to which the members of a culture avoid unknown circumstances or uncertainty by depending on accepted practices, rules or procedures
Gender egalitarianism:	Extent to which the organisation minimizes differences in roles and opportunities based on gender
Aggressiveness:	Extent to which members of an organisation are competitive and confrontational with each other
Humane orientation:	Extent to which an organisation encourages and rewards altruistic behaviour
Future orientation:	Extent to which organisations develop plans and strategies for future
Performance orientation	Extent to which the organisation encourages excellence and rewards improvement

Results

The literature search identified 7,650 articles. The majority of the articles were excluded because they were either unrelated to the health sector or they had a focus in HICs. One hundred and seventeen articles were thought to be potentially relevant. Following the removal of duplicates, 102 articles remained and their titles and abstracts were screened against the inclusion and exclusion criteria. However, only 8 articles were retrieved for full text reading with one additional article retrieved from searching the reference lists of these articles. This process is outlined in Figure 2 with reasons for article exclusion indicated at each stage.

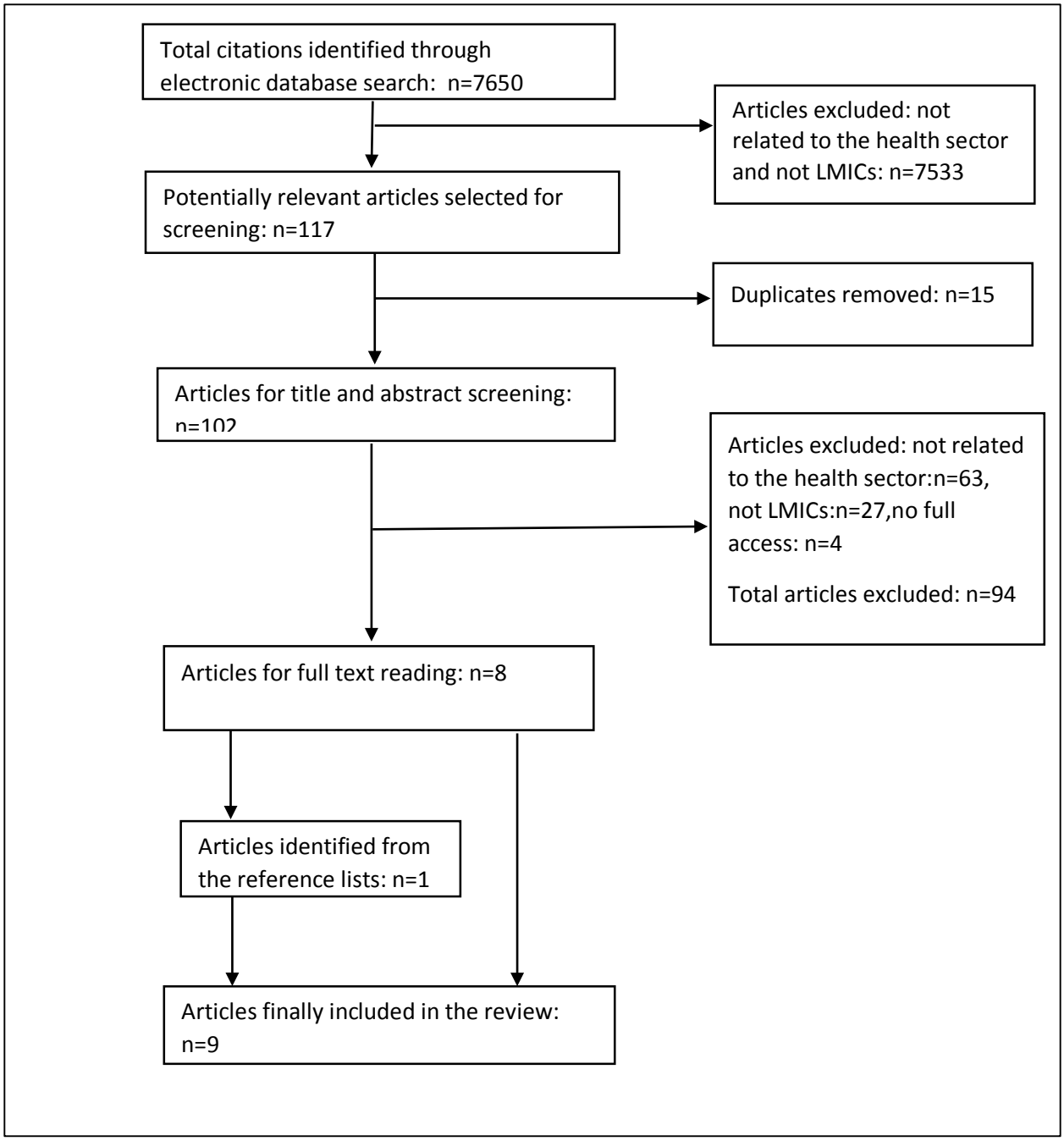

Figure 2: Search flow diagram

Characteristics of the literature

The characteristics of the articles included in the review vary in terms of type of health sector reform considered, country of focus and methodology used as outlined in Table 2.

Table 2: characteristics of the literature

TYPE OF HEALTH SECTOR REFORM	COUNTRY (IES)	METHODOLOGY
Decentralisation (n=6)	Ghana (n=3) Brazil (n=2) Uganda (n=1)	Qualitative studies (n=3) Ethnographic case studies (n=2) Case study (n=1)
Comprehensive health sector reform to strengthen primary health care (n=1)	Nigeria (n=1)	Quantitative study
Outsourcing (n=1)	Kuwait (n=1)	Case study
Public-private partnerships between the State and civil society organisations (n=1)	India (n=1)	Multi-site ethnographic study

Three of the six articles on decentralisation have the same first author and were carried out in Ghana but in different districts (Sakyi 2008, Sakyi 2010, Sakyi, Koku Awoonor-Williams & Adzei 2011). All nine articles offer insights into the influence of organisational culture over the implementation of the health sector reforms with the articles on decentralisation offering more insight because they not only constituted the majority of the articles (n=6) but also because they used case studies and qualitative methods to provide a rich description of the implementation experience and context. However, only one of the nine articles included in the review explicitly set out to study organisational culture and this study used a quantitative survey to assess organisational culture (Olukoga et al. 2010). A full list and brief overview of the articles is attached in Appendix 1.

Findings

The following section reports the aspects of organisational culture that were inductively identified from these papers as descriptive themes, and as influences over the implementation of health sector reforms. They include practices and values that were identified from the interview reports, survey responses and observations (e.g. of district meetings) reported in the papers, as well as authorial judgements. These practices include communication, management styles, participation in decision making and commitment.

They, however, do not occur in isolation and interactions and overlaps can be seen across them. Management styles and participation in decision making showed marked overlap and are therefore presented under one finding. This section concludes with an interpretive synthesis and summary of the findings.

Communication practices

The majority of papers demonstrated weaknesses in communication practices as an influence over health reform implementation (Sakyi, Koku Awoonor-Williams & Adzei 2011, Sakyi 2010, Olukoga et al. 2010, Sakyi 2008, Jeppsson, Ostergren & Hagstrom 2003). These weaknesses are framed according to recurrent themes which also convey implicit and explicit values judgements of how communication should be carried out as reported by participants or as interpreted and judged by authors.

Awareness, clarity and adequacy of information

The importance of these aspects of communication was inferred from a range of papers, based on commonly identified communication problems. In Ghana, health workers and external stakeholders reported lack of awareness and clarity of the decentralisation policy and its aims: "*I am not aware of the decentralisation programme . . . […], I don't also know the aims for decentralisation[...]"* (Sakyi, Koku Awoonor-Williams & Adzei 2011, p.412) and *"Although we know that there is a decentralised policy in the system, we have not officially been informed and had not got any written document about it so we are not very clear about its content*" (Sakyi, Koku Awoonor-Williams & Adzei 2011, p.410). Beyond awareness and clarity, health workers and stakeholders also reported that health managers provided them with little or no information on major reforms including the decentralisation policy in question (Sakyi 2010). Interestingly, senior health managers held the opinion that members of the staff should only receive information that was relevant to them as explained by one manager: *"[. . .] staff are not supposed to be given all the information, only information that concerns them or what they need to know is made available to them"* (Sakyi 2010, p.164). Unfortunately, this undermined health workers' knowledge of the reform objectives and slowed the implementation of the reform (Sakyi 2010).

Authorial interpretations of the lack of awareness, clarity and adequacy of information given to health workers and stakeholders suggest that these weaknesses resulted in: dysfunctional interactions between the district health team, staff members and external stakeholders (Sakyi 2008, Sakyi 2010, Sakyi, Koku Awoonor-Williams & Adzei 2011), limited knowledge of the reform objectives and attachment to the old values and systems of doing things which limited the implementation of the decentralisation policy in Ghana: *"[…] weak communication and information sharing contributed to the limited understanding of*

reform. This constrained reform implementation because, instead of opening up to the challenges and opportunities brought about by the reform, health workforces continued to hold onto the old value system and its style of service management in an era of change [...]" (Sakyi 2010, p.168).

In Nigeria, health workers reported that sharing of information was not done openly in their hospitals. The authors judged and interpreted this as a weakness and an area for strengthening in order to support the implementation of the comprehensive health sector reform (Olukoga et al. 2010). On the other hand, authorial interpretations of the outsourcing case study in Kuwait indicate that communication barriers in the client-outsourcing relationship limited the knowledge or information that each party had of the other's environment and culture leading to "cultural shock" (Abdulwahed Mo. Khalfan, Alshawaf 2003, p.223) and failure of the outsourcing ventures. In this regard, the authors judged communication as an important aspect of culture that would influence the successful implementation of the outsourcing strategies (Abdulwahed Mo. Khalfan, Alshawaf 2003).

Timeliness of information and feedback

Health workers and district stakeholders across Ghana's district health system reported that district managers did not provide information in time: *"….]. The only problem was that mostly the district assembly received the information late*" (Sakyi 2010, p.167) and *"[…] we only hear of the programmes either on radio or when the programme is finished*" (Sakyi 2010, p.167). In addition, the health workers complained about non-response and delays in receiving feedback from their managers. In contrast, the sharing of information and provision of feedback among senior managers was perceived to occur frequently: *"District health directors and managers communicate and share relevant information with senior managers, and they do so frequently; and, they do regular follow-up for feedback, either by telephone or written note"* (Sakyi 2010, p.166). According to Sakyi (2010), the delays and lack of feedback arose from heavy dependence on the top-down style of communication which led to centralisation of information among the managers. This prevented health workers and stakeholders from learning about the reform process which subsequently constrained the implementation of the decentralisation policy.

Effectiveness of forms of communication

In Ghana, reports by health workers and district stakeholders indicate that the usual forms of government communication, such as circulars, letters, memos and reports, were not being used effectively to share information on management decisions- which limited their knowledge of the decentralisation policies (Sakyi 2010, Sakyi, Koku Awoonor-Williams & Adzei 2011). Similarly, authorial judgements indicate that the use of circulars and written communication, as opposed to face to face communication, were the

cause of poor communication between the Ministry and the district health system in Uganda*: "It seems obvious that in Uganda, circulars and written communication in general may not suffice as carrying contexts. Important processes such as the critical face-to-face relationship, the 'co-presence' in space and time, need to be directly and clearly established [...]"* (Jeppsson, Ostergren & Hagstrom 2003, p.71). This resulted in poor support for the restructuring process required for the decentralisation policies at the district level (Jeppsson, Ostergren & Hagstrom 2003). In India, the Government and one Civil Society Organisation (CSO) used posters to convey messages of equal participation in decision making as part of decentralising health care planning to the local level. However, the effectiveness of this communication was undermined by the broader social and gender hierarchies that limited participation in these councils (Unnithan, Heitmeyer 2012).

Management styles

Three kinds of management styles are described in the reviewed articles: authoritarian, participative and consultative (Atkinson et al. 2000, Atkinson 2002, Abdulwahed Mo. Khalfan, Alshawaf 2003, Jeppsson, Ostergren & Hagstrom 2003, Sakyi 2008, Sakyi 2010, Sakyi, Koku Awoonor-Williams & Adzei 2011, Unnithan, Heitmeyer 2012). These management styles had different influences on the implementation of health sector reforms as seen below.

Authoritarian management

Authoritarian management was often characterised by hierarchy alongside concentration of power and communication. In Ghana, reports of hierarchical structures: "*The way the structures are put up here does not help; the policy is not well practiced here because it is a one person's administration"* (Sakyi, Koku Awoonor-Williams & Adzei 2011, p.411) were interpreted as centralisation of power and judged as barriers to the decentralisation policy because they negatively affected the attitude, behaviour and interactions of different actors in the district health system (Sakyi, Koku Awoonor-Williams & Adzei 2011). Atkinson et al. (2000) report a study that examined decentralisation in three districts (one rural, one urban and one metropolitan) in Brazil. In the rural district, they observed that all decision making power was centralised to the district prefect- a political figure- who never consulted or encouraged the participation of the health staff or members of the health council in decision making. As a result, the health secretariat and staff lacked autonomy and voice in decision making which led to the poor implementation of the reform policy (Atkinson et al. 2000, Atkinson 2002). Similarly, members of the Civil Society Organisations (CSOs) who had partnered with the State of India to promote rural heath, reported that the State dominated the partnership thereby stifling their autonomy and effectiveness: "*When we work with you*

we have lost the liberty. Because we think according to you, we plan according to you, we get our salary according to you. So that is the reason why we are not doing well" (Unnithan, Heitmeyer 2012, p.295). Interpretations and judgments by Unnithan and Heitmeyer (2012) indicate that this dominance highlighted the bureaucratic and hierarchical nature of the government which led to asymmetry in the State- CSOs partnership. This asymmetry led to varying forms of conflict that challenged and threatened the sustainability of the State- CSOs partnerships.

In a study on the outsourcing of information technology in Kuwait, managers within the public sector (including the Ministry of Public Health) valued their "authoritarian style of governance" (Abdulwahed Mo. Khalfan, Alshawaf 2003, p.223) and they therefore perceived outsourcing from Information Technology vendors as power sharing and hence loss of power. Abdulwahed Mo. Khalfan and Alshawaf (2003) interpreted these perceptions of loss of power as cultural problems for the outsourcing strategies. Similarly, perceptions of loss of power by some of the actors at the regional and central administration in Ghana, were judged as barriers to the implementation of the decentralisation policy (Sakyi, Koku Awoonor-Williams & Adzei 2011). In Uganda, the authors interpreted and judged the Ministry's paternalistic attitude towards the district health system and the attachment to the traditional way of managing programs within the Ministry of Health- in the face of the restructuring process and decentralisation- as "bureaucratic resistance to decentralisation" (Jeppsson, Ostergren & Hagstrom 2003, p.69). This resulted in poor ownership of the restructuring and decentralisation policies by the officials at the district level.

Authoritarian management was also inferred from reports of hierarchical reporting lines among actors in the health system. Managers in Ghana's Sekyere district health system had to seek approval from the regional administration prior to making any decisions: "*In the event of any needed change, health directors had to seek prior permission and must wait until approval is granted from regional or headquarters before any action could be taken*" (Sakyi 2008, p.314) and " […] *the top would have to come in before we are able to take decisions* (Interview with Director, Health-partner Organisation)" (Sakyi, Koku Awoonor-Williams & Adzei 2011, p.411). These reporting lines between Ghana's district health system and the regional departments were interpreted as barriers to decision making and implementation of the decentralisation policy. In addition, conflict over reporting lines between the district assembly officials and district health officials in Ghana's Sekyere district undermined cooperation and collaboration which weakened the implementation of the decentralisation policy in this district (Sakyi 2008).

Participative management

Several of the reviewed articles describe participative management whereby health managers encouraged the participation of health workers and external stakeholders in the reform process. In Brazil's metropolitan district, the authors observed and interpreted the district health secretary's style of management as participative because the secretary encouraged the participation of health workers in decision making. However, the secretary did not engage the district health council because of the assumption that district health council (made up of both health workers and lay members of the community) was a bureaucratic intervention. As a result, the council no longer convened which slowed the implementation of the decentralisation policy (Atkinson et al. 2000). In Nigeria, health workers reported that hospital managers encouraged team work and participation of the staff in planning for the health sector reforms. The authors judged and interpreted this aspect of leadership to be a supportive element of culture for the reform process (Olukoga et al. 2010). On the other hand, stakeholders in Ghana reported that health managers did not did encourage their participation in the planning and decision making process. This undermined the stakeholder's knowledge of the ongoing decentralisation reforms and weakened the implementation of the policy (Sakyi 2008, Sakyi 2010). Although participative management was not well practised in Ghana's district health system, health workers and stakeholders considered participation in decision making essential for the successful implementation of the decentralisation policy (Sakyi 2008, Sakyi 2010, Sakyi, Koku Awoonor-Williams & Adzei 2011).

Consultative management

Interview reports from external stakeholders in Ghana indicate that it was an uncommon practice for the district health managers to consult health workers and external stakeholders on management issues including major reforms: "*Our health people do not seem to appreciate the contribution of the District Assembly, they only ask for help when they need it but rarely communicate or consult with the assemblies on major health management issues . . . That is why the district assemblies are blamed for not cooperating with the health authorities; rather health management teams should be blamed for the lack of collaborative relationship*" (Sakyi 2010, p.167) and "*The district management does not give information, or consult us about any health management issues or major health decisions… [….]" (Sakyi 2010, p.167).* The poor consultation and involvement of stakeholders resulted in their exclusion from the decentralisation reform process as explained by one participant*:* "*Professional associations were not informed or effectively absorbed into the health reform programme*" (Sakyi 2010, p.168). This weakened the support needed for the implementation of the decentralisation reform.

On the other hand, authorial observations and interpretations of Brazil's urban district health system indicate that the district health secretary employed a consultative style of management: *"The urban district could be termed consultative in that the health secretary maintained much of the decision-making power but consulted other staff members and the district health council on many matters."* (Atkinson et al. 2000, p.628). As a result, the decentralisation policy was judged as better implemented in the urban district than in the rural and metropolitan districts (Atkinson et al. 2000).

Commitment

Just like management styles, commitment of district health managers to the districts and to the reforms was judged as an important aspect of the social organisation that influenced the implementation of the decentralisation policy in Brazil (Atkinson et al. 2000, Atkinson 2002). For instance, health managers in Brazil's urban district health system were observed to be the most committed to the reform objectives in terms of the language used and adherence to the procedures outlined in the reforms when compared to the managers and health workers in the rural and metropolitan districts. Consequently, decentralisation policy was considered better implemented in the urban district compared to the metropolitan and rural districts (Atkinson et al. 2000, Atkinson 2002). In Ghana's Nkwanta district, health managers reported poor commitment to and lack of ownership of the decentralisation policy because they felt that the headquarters largely imposed the reforms on them. Poor commitment and lack of ownership were interpreted by the authors as barriers to the decentralisation policy (Sakyi 2008).

In Nigeria, inferential judgements on positive managerial commitment were made from health workers' perceptions that: organisational activities were directed towards the health sector reforms, the leaders had the capacity and willingness to represent the interests of the organisation to external stakeholders and steer the organisation towards achieving the objectives of the health sector reforms, and lastly, the organisation had an image consistent with the objectives of the comprehensive reform as well as the capacity to innovate towards the reforms. Authorial judgements suggest that these aspects of organisational culture were strong to support the implementation of the health sector reforms (Olukoga et al. 2010).

Influence of the wider social and political context

The influence of political culture on the implementation of the decentralisation policy was judged as particularly marked in Brazil's rural district compared to Brazil's urban and metropolitan districts (Atkinson et al. 2000) such that the reform had little impact on increasing local voice and autonomy (Atkinson et al.

2000, Atkinson 2002). Authorial observations of Brazil's rural district, showed that the district prefect –a political figure- retained all the decision making power thereby disempowering the district health secretary and limiting the participation of the health workers in decision making. In addition, authorial judgments indicate that the disposition and behaviour of the district health secretary towards the health sector reforms in Brazil's district health systems mirrored what was valued by the political leaders including the district prefect. In this regard, the prevailing political culture in Brazil's rural district hindered the implementation of the decentralisation (Atkinson et al. 2000, Atkinson 2002). Similarly, health workers and managers in Ghana's Nkwanta district reported that political interference by those in authority formed a barrier to the implementation of the decentralisation policy (Sakyi, Koku Awoonor-Williams & Adzei 2011). On the other hand, efforts by the Indian government and the CSOs to increase local participation in decision making in the village health councils-which were part of the decentralisation of health planning- were limited by the wider social and gender hierarchies (Unnithan, Heitmeyer 2012).

As judged by Atkinson et al. (2000), management styles, commitment and political culture were aspects of the social organisation that had the potential to negatively influence the implementation of the decentralisation policy across Brazil's case studies: *"The extent to which aspects of social organisation and political culture enable or hinder implementation indicates a mixed influence but one which is sufficiently negative..[…]"* (Atkinson et al. 2000, p.632).

Synthesis of the findings

One of the main objectives of this interpretive review is to present analytic themes and provide a synthesis of the influence of organisational culture on the implementation of health sector reforms. Importantly, the study of culture within organisations is largely interpretive and founded on the notion that the behaviour and actions of the members are influenced by rules, orders, incentives and "common frames of reference" (Mahler 1997, p.527). The previous section presented the range of practices identified from the papers which provide a common frame of reference that can be further interpreted and understood along four cultural dimensions: power distance, in-group collectivism, uncertainty avoidance and institutional collectivism (House et al. 2004).

The dimension of power distance is characterized by varying concentrations and distributions of power across the health systems in the reviewed literature with varying impacts on organisational practices and implementation of the reforms. For instance, the presence of a large power distance in the district health system- characterised by centralisation of power to the district managers- not only disempowered the junior managers but also limited the autonomy, local voice and participation in decision making by health

workers and external stakeholders as seen across Brazil's and Ghana's case studies. This weakened the implementation of the decentralisation policy in both countries (Atkinson et al. 2000, Atkinson 2002, Sakyi 2008, Sakyi 2010, Sakyi, Koku Awoonor-Williams & Adzei 2011). This large power distance also negatively affected the commitment of managers and health workers in Brazil's rural district (Atkinson et al. 2000, Atkinson 2002) and in Ghana's Sekyere district (Sakyi 2008) which weakened the implementation of the decentralisation policy. In Ghana, the presence of a large power distance led to the concentration of communication among the senior managers and to the dependence on top-down style of communication. This resulted in poor communication and feedback practices between the managers and health workers which led to poor implementation of the decentralisation reform at the district level (Sakyi 2008, Sakyi 2010, Sakyi, Koku Awoonor-Williams & Adzei 2011). In India, the large power distance between the government and the CSOs limited the autonomy of the CSOs and threatened the sustainability of the partnership (Unnithan, Heitmeyer 2012). In Kuwait, it can be interpreted that the managers' desire to maintain the large power distance hindered communication which threatened the outsourcing strategies (Abdulwahed Mo. Khalfan, Alshawaf 2003). On the other hand, the presence of a small power distance was associated with participative and consultative styles of management as well as increased participation of health workers and stakeholders in decision making as seen in Brazil's urban district leading to better implementation of the reform compared to the rural and metropolitan districts (Atkinson et al. 2000). The above case studies therefore suggest that the extent of power distance within the health system can shape the implementation of the reforms through its influence on management styles, participation in decision making, communication and commitment.

The cultural dimension of high institutional collectivism can be inferred from local health systems that valued team work and collective action from both the members of the organisation and the external stakeholders. For instance, Brazil's urban health system valued collective consultation and participation of health workers and stakeholders in decision making. The district health secretary therefore consulted and engaged the stakeholders in regular health council meetings. This created an enabling environment for the implementation of the decentralisation policy which proceeded with fewer challenges compared to the metropolitan and rural districts (Atkinson et al. 2000, Atkinson 2002). However, local health systems with low institutional collectivism did not encourage collective action in decision making for the reform process from either their members or external stakeholders as seen in Brazil's rural district (Atkinson et al. 2000); Ghana's district health system (Sakyi 2008, Sakyi 2010, Sakyi, Koku Awoonor-Williams & Adzei 2011) and in Uganda, where district health managers were not involved in decision making with regards to the decentralisation and restructuring process (Jeppsson, Ostergren & Hagstrom 2003). Low

collectivism, therefore, undermined both intra-organisational and inter-organisational support for the reforms which resulted in the poor implementation of the health sector reforms as reported in the aforementioned studies. It can therefore be inferred and interpreted from these studies that the extent to which the organisation values institutional collectivism will influence the management style as well as level of health worker or stakeholder participation in decision making.

High in-group collectivism was expressed by managers in Brazil's urban district who showed more commitment to the district and to the decentralisation reform than the managers in the rural and metropolitan district. This commitment was judged to lead to better implementation of the reform in the urban district (Atkinson et al. 2000, Atkinson 2002). High in-group collectivism can also be inferred in the Nigerian study where health workers expressed confidence in the capacity of their managers to steer the organisation towards achieving the reform objectives, as well as alignment of the organisational activities to the reform objectives. This was judged to support the reform process (Olukoga et al. 2010).

The dimension of uncertainty avoidance can be interpreted from Ghana's district health system where despite health workers' perception of needed change, no decisions could be made without the approval of senior managers. The heavy dependence on rules and approval to guide decision making despite needed change is suggestive of high uncertainty avoidance. Unfortunately, this slowed decision making for the implementation of the reforms (Sakyi, Koku Awoonor-Williams & Adzei 2011). In Uganda, the attachment to the traditional practice of managing vertical programs by Ministry of Health officials in the face of decentralisation and restructuring underscores organisational rigidity to change and hence high uncertainty avoidance- which limited the implementation of these policies (Jeppsson, Ostergren & Hagstrom 2003). On the other hand, an organisation's capacity to innovate as reported by the health workers in Nigeria is suggestive of low uncertainty avoidance. The capacity to innovate was judged as being supportive of the reforms (Olukoga et al. 2010) and can be interpreted as a manifestation of the organisation's commitment to achieving the reform objectives.

Beyond these dimensions of organisational culture, the reviewed literature also provided evidence of the influence of the wider social and political culture on organisational practices and subsequently on the implementation of the health sector reforms. This influence was particularly felt in Brazil's rural district health system where the prevailing political culture and attitudes of political leaders influenced the management styles and extent of participation of health managers and health workers in decision making (Atkinson et al. 2000, Atkinson 2002). Political interference in the implementation of the decentralisation policy by those in authority was also reported by some participants in Ghana's Nkwanta district (Sakyi,

Koku Awoonor-Williams & Adzei 2011). In both contexts (the rural district in Brazil and Ghana's Nkwanta district), political influence limited the implementation of the decentralisation policy. On the other hand, the wider social and gender hierarchies in India were judged to limit participation in decision making in the village health council. This undermined the efforts to decentralise health planning under the State-CSOs partnership (Unnithan, Heitmeyer 2012).

The above synthesis generates a complex relationship between the dimensions of organisational culture and implementation of health sector reforms which is mediated through organisational practices as summarised in Figure 3.

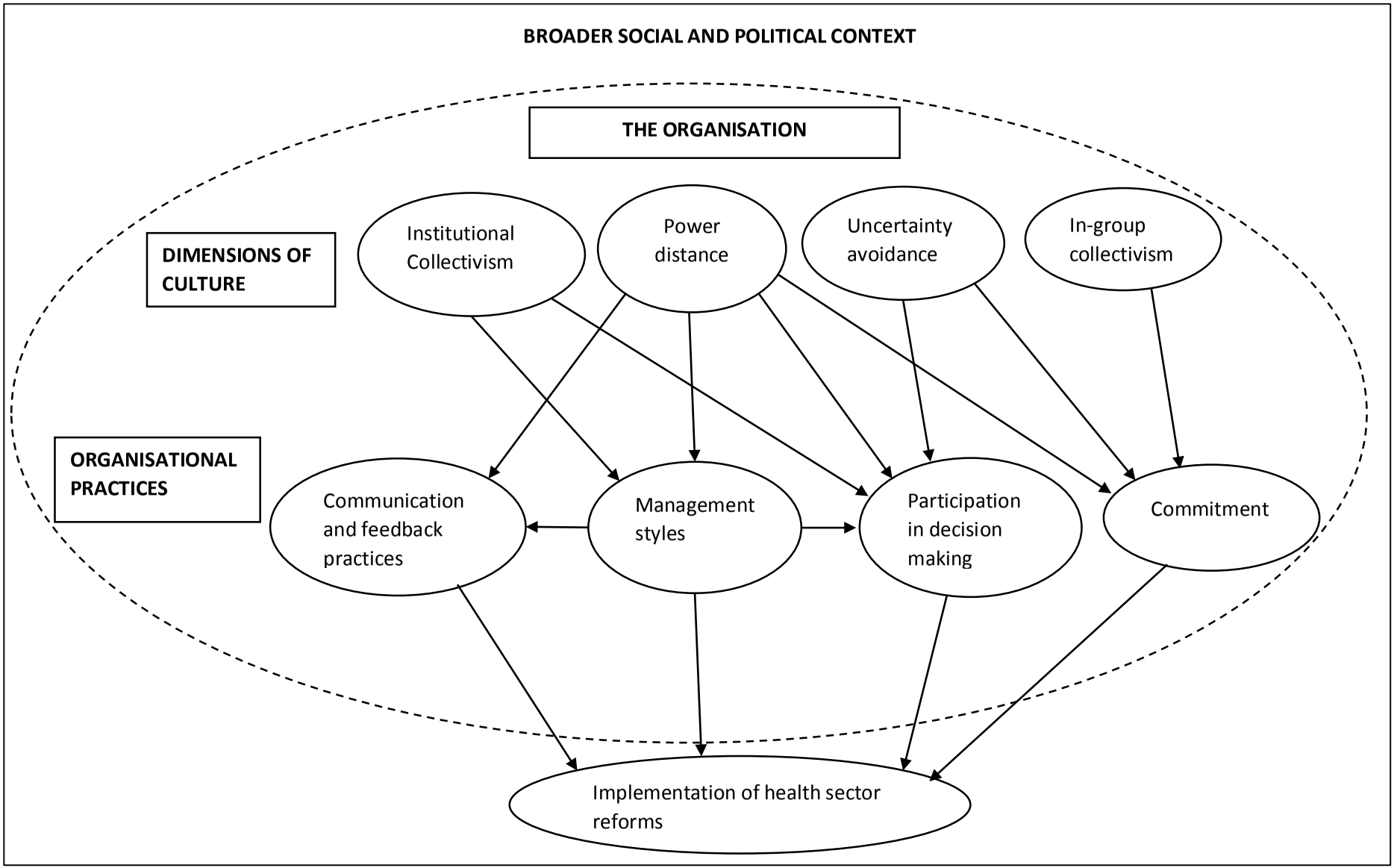

Figure 3: Framework of the relationship between dimensions of organisational culture, organisational practices and the implementation of health sector reforms. Adapted from Jaakko et al. (2010). The boundary of the organisation is represented by a dotted line to show the influence of the wider political and social context on the organisation.

Discussion

There has been growing interest in the notion of organisational culture and its potential influence in the health sector particularly in the HICs. However, organisational culture has been little examined in health systems studies in LMICs. This paper, therefore, presents a review of empirical literature with two aims: (1) to identify and synthesize findings on organisational culture and its influence on the implementation of health sector reforms in LMICs, and (2) to provide analytic generalizations that can inform health policy and systems research. The retrieval of only a few papers can be seen as a limit of this synthesis; however, the analytic generalizations possible provide the following insights.

Using thematic analysis, this review identified four organisational practices that influenced the implementation of the health sector reforms across the different country settings: communication, management styles, participation in decision making and commitment. To enable the understanding of these organisational practices as dimensions of organisational culture, they were further interpreted and synthesised using the House et al. (2004) cultural dimensions of power distance, in-group collectivism, institutional collectivism and uncertainty avoidance.

Articulating the nature of the influence of organisational culture on the implementation of the health sector reforms was largely based on judgements and new insights beyond those of the primary study in keeping with the aim of an interpretive synthesis (Dixon-Woods et al. 2005). The interpretations arrived at in this review suggest that: (1) power distance impacts on communication, management styles, commitment and participation in decision making, (2) institutional collectivism impacts on management practices and participation in decision making, (3) uncertainty avoidance impacts on decision making and commitment and, lastly (4) in-group collectivism impacts on commitment. This synthesis is summarised in figure 3 above.

The multiple linkages between the cultural dimensions and organisational practices highlight the complexity of the notion of culture within organisations. Nevertheless, the interpretations arrived at in this synthesis can be supported by wider literature. Power distance is expected in any society or organisation with some showing more inequality than others (Hofstede 1983). As seen in this review, power distance varied across the district health systems in different countries, with some health systems showing larger power distance than others as seen across the three district health systems in Brazil. The influence of power distance on the style of management and participation in decision making is not peculiar to the health sector. A large multicountry study on the influence of culture on managers'

behaviour across different continents including Africa, showed that in a hierarchical culture managers tended to rely on rules, procedures and their superiors during decision making and less on their subordinates (Munene, Schwartz & Smith 2000). Similarly, the influence of power distance and collectivism on organisational practices appeared to overlap leading to different forms of management styles (authoritarian, consultative or participatory) and participation in decision making. Interestingly, both power distance and collectivism have also been shown to correlate in various country settings leading to various forms of participatory decision making depending on the extent to which both cultural dimensions are valued and practiced within the organisation (Sagie, Aycan 2003). The effect of the broader social and political culture on organisational culture and implementation of the health sector reforms can be supported by earlier work by Gilson and Erasmus (2004) who recognised that organisations are embedded within the wider society and their functions can therefore be influenced by values held in the wider societal context.

This review has the following implications for health policy and systems research. Firstly, given the dearth of literature, it underscores the need for more empirical studies on organisational culture and its influence on change in the health sector. It is possible that these studies may generate new insights on different dimensions of organisational culture, values and practices and their on influence on changes in the health sector which may be useful for health system development. Secondly, the framework presented in Figure 3 provides a useful starting point for future researchers to test and build the knowledge base on organisational culture and change in the health sector. This framework may also support cross-paper or cross-context analytic generalisations in interpretive synthesis work and qualitative empirical research. Thirdly, future researchers can also build on this interpretive synthesis- for example, by considering unpublished literature and literature from HICs, as well as by expanding and translating the literature search strategy to other data bases accessible to them. Lastly, the broad and inclusive scope of organisational culture makes its interpretation difficult. We therefore recommend that future researchers work in teams when studying and analysing organisational culture.

With regards to the implications for health managers and policy makers, the findings of this review suggest the value of identifying dimensions of organisational culture which can influence the implementation of health sector reforms indirectly through their influence on organisational practices. Due to the limited number of articles reviewed, no conclusions can be made on which dimensions of organisational culture provide the most influence to the implementation of the health sector reforms- although it can be inferred that power distance largely influenced all the organisational practices. In addition, understanding culture

can facilitate the development and negotiation of "mutually agreeable approaches to conflict resolution, problem solving, decision making, and management practices" (House et al. 2004, p.6), which characterised the implementation of the reforms across the different settings in the reviewed literature. It is important that improvement strategies are adapted to the local culture (Hofstede 1983) as what works in one context, may not necessarily work in another. Therefore, the importance of organisational culture in the health sector cannot be overemphasized.

Conclusion

This interpretive review suggests the potential influence of dimensions of organisational culture such as power distance, in-group collectivism, institutional collectivism and uncertainty avoidance on the implementation of health sector reforms. This influence is mediated through organisational practices such as management styles, participation in decision making, communication and commitment. Nevertheless, the analytic generalizations of this synthesis are limited by the few papers retrieved and the evidence can only be considered tentative. This review recognises the need for more empirical research on organisational culture in LMICs health systems in order to deepen the understanding of the influence of the different dimensions of organisational culture on health reforms or health system changes and health system development.

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Conflict of interest: None declared

List of abbreviations

CSO(s) Civil Society Organisation(s)

HICs High Income Countries

LMICs Low and Middle Income Countries

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Appendix

Appendix 1: Summary of the articles included in the review

Title of article, Name of author, publication year	Geographical region	Type of health sector reform	Methods Study setting	Brief overview of the article
Analysis of the perception of institutional culture for health sector reform in Nigeria (Olukoga et al. 2010)	Nigeria	Comprehensive health sector reforms that aim to strengthen preventive and curative primary health care services and enhance provision of quality and affordable health services	Cross-sectional study using close-ended questionnaires 4 hospitals: Two public sector university hospitals, one public sector hospital and one not-for- profit mission hospital	Following the introduction of a comprehensive health sector reform programme by Nigeria's Ministry of Health in 2005, this study explores the perceptions of organisational culture held by all the professional and managerial members in four hospitals and how the culture influences the implementation of this reform. The two dimensions of culture that were explored in this study are leadership and character whereby character refers to the identity of the organisation that distinguishes it from other organisations.
Barriers to implementing health sector administrative decentralisation in Ghana A study of the Nkwanta district health management team (Sakyi, Koku Awoonor-Williams & Adzei 2011)	Ghana	Decentralisation	Qualitative study conducted using semi-structured individual and group interviews with managers and junior workers from Nkwanta district health management team who had been involved in the implementation process	This empirical study seeks to understand how health workers' level of knowledge and understanding of the reform objectives influences the implementation of the reforms. It also seeks to identify organisational factors that influence the implementation of the decentralisation policy within the local district health system

Title of article, Name of author, publication year	Geographical region	Type of health sector reform	Methods Study setting	Brief overview of the article
Communication challenges in implementing health sector decentralisation at district level in Ghana. A study of health workforce and stakeholder opinions from three district health Administrations (Sakyi 2010)	Ghana	Decentralisation	Qualitative study using in-depth interviews with district public health and local government officials, private health care providers and health-related non-government organisations in three districts: Dangme West, Sekyere West and Tamale districts	This study examines how internal communication of the decentralisation policy and its objectives influences the implementation of the decentralisation policy at the district level. It focuses on identifying challenges in communication by exploring managers', health workers' and stakeholders' perceptions of the channels, adequacy and effect of shared information.
Global rights and state activism: Reflections on civil society—State partnerships in health in NW India (Unnithan, Heitmeyer 2012)	India	Civil Society Organisations (CSOs) and State Partnerships in development programmes under the National Rural Health Mission	Multi-site Ethnographic study over a one year period (July 2009- June 2010). Data collection was done through questionnaires, interviews (informal and semi-structured), focus group discussions and participant observation in meetings and trainings with members of the CSOs working in Rajasthan state, India	This study seeks to understand how the CSOs-State partnerships function to promote rural health by drawing on the perspectives of the CSOs members. It also seeks to understand how the differences in culture and values between the two organisations affect the sustainability of these partnerships

Title of article, Name of author, publication year	Geographical region	Type of health sector reform	Methods Study setting	Brief overview of the article
Going down to the local: incorporating social organisation and political culture into assessments of decentralized health care (Atkinson et al. 2000)	Brazil	Decentralisation	Ethnographic case studies in three district health systems (metropolitan, rural and urban) in Ceara State. Data was collected through formal open interviews, observations, informal conversations, field notes and document reviews	This study seeks to understand how the dimensions of the social organisation and political culture-which form aspects of the local environment- influence the implementation of the decentralisation policy and achievement of the reform objectives across three district health systems.
Implementing decentralised management in Ghana The experience of the Sekyere West District health administration (Sakyi 2008)	Ghana	Decentralisation of health services and programmes	A case study approach using in-depth interviews and focus group discussions. Participants included district public health officials, local government officials, private health care providers and non-government organisations who had worked in Sekyere West District for at least two years.	This study explores the barriers to the implementation of the decentralisation policy in Ghana by drawing on the perceptions of health managers, health workers and stakeholders.

Title of article, Name of author, publication year	Geographical region	Type of health sector reform	Methods Study setting	Brief overview of the article
IS/IT outsourcing practices in the public health sector of Kuwait, a contingency approach (Abdulwahed Mo. Khalfan, Alshawaf 2003)	Kuwait	Outsourcing of information technology and information systems in the Public Health Sector	Case study using questionnaires, semi-structured interviews and document reviews from different public sector institutions including the Ministry of Public Health	This study explores the practice of outsourcing of Information Technology services across the public sector including the Ministry of Public Health. It also seeks to develop a conceptual model of the variables that influence the successful implementation of the outsourcing strategies.
Political cultures, health systems and health policy(Atkinson 2002)	Brazil	Decentralisation	Ethnographic case studies carried out within three districts (rural, urban and metropolitan).	This study explores the influence of political culture and other aspects of the social environment on the implementation and performance of the decentralisation policy across three district health systems in Brazil.
Restructuring a ministry of health – an issue of structure and process: a case study from Uganda (Jeppsson, Ostergren & Hagstrom 2003)	Uganda	Health system restructuring in the context of Decentralisation	Qualitative study involving: participant observation, interviews with civil servants within the Ministry of Health and Donors, review of documents and, discussions with district officials	This study assesses whether the restructuring of the Ministry of health supported the decentralisation policy. It also analyses the factors that challenged the implementation of the National Health Policies in the context of decentralisation

Appendix 2: Information for authors: Health Policy and Planning

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